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## SOME ASPECTS OF PESTILENCES AND OTHER EPIDEMICS.

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By B. S. GOWEN.

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### I. THE BLACK DEATH.

From the time of the first recorded pestilence down to the present there have been comparatively few periods of any considerable length when pestilences or other epidemics have not prevailed in some part of the world. One of the most persistent of these is the disease now known as the Oriental or bubonic plague. It is possible that the last of "the plagues of Egypt" was this same pestilence; and there can be little doubt that the more than 50,000 Israelites and Philistines "slain by the angel of the Lord" near Bethshemesh on account of the ark (I Sam. iv, 6), as well as the 70,000 "destroyed by Jehovah" on account of David's sin (II Sam. xxiv, 15),<sup>1</sup> were simply victims of the pestilence which is destroying its thousands in the Orient to-day, for the symptoms, so far as they are given, are similar. It is probable, therefore, that the plague of David was identical with the pestilence which, according to Homer, broke out in the Greek camp during the Trojan war. And we may reasonably suspect that one of Job's afflictions was an attack of the bubonic plague. The plague of Athens (430 B. C.), so graphically described by Thucydides, though resembling the genuine plague in some respects, was probably not identical with it. In the description of this pestilence we get our first valuable

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<sup>1</sup> This attribution of pestilences to the "angel of the Lord" was not peculiar to that early age; belief in their divine origin and punitive nature persisted in Europe until recently.

data for a psychological study of pestilential epidemics. In the account given by Rufus of Ephesus concerning a pestilence 300 B. C. we have probably the first authentic account in profane history of the genuine bubonic plague. Procopius, an eye witness of the Justinian plague (542 A. D.), proves that scourge to be the greatest and most wide-spread pestilence known up to that time:—indeed, it has been surpassed in its sweep and destructiveness by only one in the history of the world, and that one is the Black Death.

Though all the intervening centuries record numerous pestilences—usually five or six to the century—our attention will centre mainly in the epidemics of the later Middle Ages, and particularly in the fourteenth century, for into it were crowded more pestilences and peculiar epidemics than have ever been known at any other time. Not to mention the famine which, in the second decade of the century, strewn the roads with the dead, and caused imprisoned thieves to devour one another, nor the severe scourges of some of the more common diseases, such as measles and small-pox, there were probably twenty visits of the plague in various parts of Europe; besides, the witch mania still held sway, and the craze of the Flagellants was almost universal; the dancing mania in some form or other overran a number of European countries,—St. John's and St. Vitus's dance in central and northern Europe, and tarantism in Italy; and that most terrible (though not the most wide-spread) of all diseases, St. Anthony's fire, raged particularly in France and England. Truly this was "a century of putrid malignant affections."

The Black Death, which we shall consider first, occurred about the middle of the century, though the name which it now bears was not applied to it till about a century later. It has very appropriately been called "the greatest calamity ever visited upon mankind." Dr. Creighton, speaking of the Black Death (103a: II 133), says that although the political history of that part of the century is not unimportant, "it shrinks into insignificance in the presence of that tremendous social calamity which changed the whole face of rural England, and by transforming her agricultural system, gave a new direction to her industries, left a lasting impress on her laws, her arts, and her manners, and in a word, profoundly and permanently affected the whole future course of her political, social and economic life."

Only by a somewhat extended study of the Black Death will we be prepared to appreciate its full significance for a psychological study. Let it be understood at the outset, however, that in describing the Black Death I am but describing a severe form of the bubonic plague, for it is not a disease *sui generis*,—

a pestilence that visited the earth but once and then disappeared forever, as some have thought (1:416).

I have referred to the Black Death as the greatest calamity the human race was ever subjected to. It is true, the Justinian plague, which ushered in the Middle Ages, was called a world-pestilence, for it overran the known world of that early date, but the known world in 1348, when the Black Death, the next world-pestilence, brought the Middle Ages to a close, was a much greater world. There have been two or three scourges since that date which were less general in their sweep but even more destructive in some places. London, for example, suffered probably as much in 1603 and 1625, and perhaps even more from the "Great Plague" in 1665, when the plague as an epidemic visited England for the last time.<sup>1</sup> The same could be said of Milan, Marseilles, Constantinople, and other cities; but what gives the Black Death greater prominence is the fact that it was pandemic.

As to the origin of the Black Death, there are various opinions. Not a few writers have considered it a special punishment sent by the Almighty because of the wickedness of the world; others have thought that the plague was "created in the beginning," and that there has been no break in it since; still others think it unnecessary to assume that the Black Death (or the plague in any form) "was created in heaven" for the punishment of man's wickedness, or that it has existed in unbroken succession since the beginning of the world; but prefer to hold that the germs exist, and only need suitable soil or right conditions in order to develop and produce the disease. This view, it seems to me, will force itself upon one who makes a careful and exhaustive study of all the facts. The origin of the Black Death, as of other outbreaks of the plague in modern times, could no doubt be traced to natural causes in some definite place if records had been kept. Whether it originated in China,<sup>2</sup> as some think, or in Arabia, as others believe, I shall not discuss; but shall stop where I think absolutely authentic history stops.

We have definite proof that the plague afterwards known as the Black Death, existed at Caffa or Gaffa (now Theodosia), a

<sup>1</sup> Dr. Creighton says (I. 202) that it ceased in 1666, but Brayley (Intr. to DeFoe, p. xx), says that in a milder form it persisted till 1679.

<sup>2</sup> Many writers, following more or less vague reports, are of opinion that the Black Death originated in China in 1333 in connection with earthquakes and famine. Dr. Creighton refers to this tendency to place the origin as far off as possible when he says that according to some epidemiologists "it is enough to have traced a virus to a remote source, to 'the roof of the earth,' or the backbone of the east wind, and there to leave it."

Genoese city in the Crimea, about the middle of the fourteenth century (30:48). In 1346 this town was attacked by the Tartars, and at some time during this siege, probably in 1347, the plague broke out among the Tartars, and carried off thousands daily. The besiegers, despairing of taking the city by force, and hoping to get possession in an indirect way, or perhaps to take revenge on the besieged, began to use their engines of war for hurling into the city the bodies of those who had died of the pestilence (30:48). The city was abandoned; the inhabitants took to their ships and sailed westward, causing the spread of the plague in Europe. It came to Constantinople; the emperor, John Cantacuzene, following Thucydides's description of an earlier pestilence, says (40:10), "The epidemic which then raged in Northern Scythia, traversed the entire seacoast, whence it was carried all over the world. For it invaded not only Pontus, Thrace and Macedonia, but Greece, Italy, the Islands, Egypt, Libya, Judea, Syria, and almost the entire universe." A detailed study of the Black Death for the next four or five years would lead to the acceptance of such a description as this, without so much discount as would at first seem necessary.

It was early in the year 1348 that the ships which are believed to have brought the infection from the Crimean city reached Italy. Though the ships arrived safe,—some at Genoa, some at Venice, some at other ports,—not so the crews, for De' Mussi says that of a thousand sailors hardly ten were spared (30:50). At some places ships were seen without crews; drifting with the tide, touching shore here and there, and spreading the poison everywhere they touched (49:21; 40:12), just as in the country "herds were seen without a shepherd," roaming at will, and communicating the plague (30:50),—for cattle, as well as men and rats, are subject to this disease (30:46; 49:5; 24:8). It mattered little, however, whether ten or a thousand sailors reached home, for, to use Covino's expression, "one can infect the whole world." And this seems less of an exaggeration after reading such accounts as the following, by De' Mussi (30:52). "Some Genoese, who fled from the plague raging in their city, betook themselves hither to Piacenza. They rested at Bobbio, and there sold the merchandise they had brought with them. The purchaser and their host, together with all his family and many neighbors, were quickly stricken with the sickness, and died. One of these, wishing to make his will, called a notary, his confessor, and the necessary witnesses. The next day all these were buried together. So greatly did the calamity increase that nearly all the inhabitants of Bobbio soon fell a prey to the sickness, and there remained in the town only the dead." And

again (p. 53): "It was the same in neighboring towns and villages. One Oberto di Sasso, who had come one day from an infected place to the church of the Friars Minor to make his will, called thither a notary, witnesses and neighbors. All these, together with others, to the number of more than sixty, died within a short space of time.—[Besides many members of the various religious orders] more than sixty dignitaries and rectors of the churches in the city and district of Piacenza died. Of nobles, too, many; of young people a vast number."

Such descriptions as this could be given of almost every city on the Italian peninsular; and not only at this date, but during many other visits of the plague, for Italy was visited sixteen times in the fourteenth century (40:31). Milan, which was the only important city to escape in 1348, was not so fortunate on other occasions, especially about two centuries later. Some of our most interesting material will be found when we take up the plague of 1630 in that city. And the description which it will be necessary to give of that scourge will make it desirable to omit details of a similar nature in other places.

It not only spread throughout the length and breadth of Italy, but found its way into France. Hardly a nook or corner of this country escaped. Li Muisis, Abbot of St. Martin's, Tournay, who was a contemporary of the events he describes, gives a vivid picture of the ravages of the plague not only in his own city, but in all France. Avignon, then the seat of Pope Clement VI, suffered more than most cities. The pope left the city for a time, and in order to make it possible for the sick to have attention, he granted plenary absolution to all who would care for the sick (40:41); otherwise it would have been difficult to get any to do this work of mercy. Marseilles was sorely afflicted, as it was a century or two later; and Paris did not escape. To show how nearly universal it was in France, one author says the plague went "from town to town, village to village, from house to house, and even from person to person." Indeed, this same statement could be made of almost all European countries, and would be no great exaggeration.

It had overrun Spain<sup>1</sup> before it had become so wide-spread in France. From France it took several different courses,—toward Germany, Belgium, Holland and England. After raging in England for a whole year, it found its way into Wales, Ireland and Scotland, and in 1350, into Greenland and Iceland. On the continent in this same year, it came into Switzerland apparently from different directions; it also visited

<sup>1</sup> Spain suffered greatly again in 1399, when it was so depopulated that the law forbidding women to marry within a year of their husbands' death was suspended (110:1, 143).

Austria, Hungary, Poland, Norway, and Northern Europe generally, reaching Russia in 1351. Thus its sway in Europe extended from 1347 to 1351. This must be understood as a mere outline, intended to give only a general view of the course of this dread disease. It must be remembered that scarcely a town or hamlet escaped in any of these countries mentioned, and indeed, in some countries not specified, together with many islands of the sea. Creighton expresses it well when he says that not a country from China to the Atlantic escaped.

One is naturally curious to know something more in detail concerning the nature of a disease that brought such widespread desolation at one visitation,<sup>1</sup> to say nothing of the half a hundred other visitations in Europe from the time of William the Conqueror till the "Great Plague" (1665), and half a score or more since that time.

In general, we may say the symptoms<sup>2</sup> of the Black Death were of two kinds, outward and inward. Of the outward signs, there was swelling of the gland (usually in the armpit, groin or neck) called imposthumes or buboes; dark spots on the breast or back,—known as "God's tokens," usually shortened to "tokens"—(the color of these spots gave the disease its name of "Black Death"); sometimes carbuncles in the fleshy parts; in some cases, inflammatory boils, separate or confluent. The chief inward sign was blood-spitting, or as some say, "vomiting," but while this was found wherever the plague raged, it was not found in every case—not even in all severe cases. I may mention, also, that delirium was very frequently present. Many writers mention a gangrenous inflammation of the throat, and violent pains in the chest; this no doubt was connected with the blood-spitting. There was a pestilential odor from the breath of those who vomited blood. Dr. Hodges (106 : 367) speaks of the perspiration being purple or greenish black and of the blood being colored. In the East the plague usually began with nose-bleeding, and this was a sure sign of death, as blood-spitting was in the West;—it is said

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<sup>1</sup> The plague returned to England five times before the end of the fourteenth century,—1361, 1368-9, 1375, 1382, 1390-1. Had not the country been so depopulated already, the scourge in 1361 would have rivaled the Black Death; it claimed more victims among children (as its name, "*pestis puerorum*," indicates) and among the higher classes than the plague in 1348,—indeed the Black Death is usually considered a disease of the lower classes, but it did not spare the great by any means; the wife and a daughter of Edward III, of England, Johanna of Navarre, Johanna of Burgundy, two brothers of the king of Sweden, Alfonso XI, of Spain, and others connected with royal families were victims of the plague.

<sup>2</sup> Cf. Gasquet: 7; Hecker: 2, ff.; Sprengel: II, 606 f.

that no one in England was known to live longer than a day if he began by vomiting blood (*cf.* 62:22). I use "vomiting" and "spitting" interchangeably, for dissection always showed the lungs to be the part affected when this symptom was present; in fact the lungs were practically consumed by a putrid inflammation. Absolute dissolution seemed to be aimed at; dissection would show more decay inside than out. In the West, the lungs were often attacked and death was near before any outward signs or buboes appeared, according to the account given by de Chauillac. Physicians sometimes opened bodies and found huge carbuncles inside. The buboes were frequently as large as a hen's egg; if they broke, or became running sores, there was hope for the patient, otherwise death occurred in a short time. The "tokens," or outward signs which almost surely indicate death, are black spots, carbuncles, or buboes, and inflammatory boils, unless, as stated above, the buboes or boils should break.

The plague did not attack all people in the same way. Some retired at night, apparently well, and were found dead next morning; some fell into a deep sleep from which they could not be roused; some were struck suddenly and died within a few hours; others, wild with fever, could not sleep, and were consumed with a deadly thirst. It was not uncommon for persons who felt no pain to see the tokens and then be dead in a few hours. Dr. Hodges (106:262) says that men who were engaged in conversation with their friends have been known to fall suddenly into a profound and often deadly sleep. Dr. Guthrie, who was in Moscow during one visit of the plague, saw men fall as if shot (106:262); some of these, however, would recover. Dr. Alexander Russell (p. 229) confirms these reports, and Antes (p. 42) has known men to drop dead without the least warning sign.<sup>1</sup>

It must not be inferred that the majority died suddenly, *i. e.*, without warning; those who began with nose-bleeding or blood-spitting might live a day, but not longer. If they were attacked in some other way they might live till the third day, the day on which most deaths occurred; one who lived beyond the third day was likely to die the fifth if he died at all. One who recovered might be attacked again and again, even as many as half a dozen times, and was no more likely to die because of having had the plague before.

It can well be understood that accurate statistics could not be gathered in a scourge like this; so we are prepared for considerable difference of opinion in regard to the number of sick,

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<sup>1</sup> *Cf.* also Hecker: 6; Gasquet: 10; Sprengel: II, 606 f.; Papon: I, 172; Webster: I, 103.



the percentage of deaths, the total number of victims, and so on. Before giving the estimates of various authors on these points, it may be well to consult the reports in regard to more recent scourges where the figures can be relied upon as correct.

Dr. McLean, who spent some time in the Levant studying the plague in 1817, says that 90 per cent. of the sick died, but he fails to give the percentage of attack. In a study of the Pali plague of 1836 (50: V, 515) Hirsch says that 30 per cent. of the entire population were attacked and that about 80 per cent. of the sick died,—giving a mortality of 24 per cent., or nearly one-fourth of the entire population. The report of the commission appointed by the English parliament 1900 and 1901 gives a similar percentage for Bombay. Sternberg, whose investigations are more recent still, gives (p. 105) the mortality of those attacked among Chinese, as 94.4 per cent. It is reasonable to conclude, therefore, that the death rate was no less in the Middle Ages when ignorance of sanitation gave the Black Death a better field than the plague can have in modern times. And as the mortality was about the same at different times and places, the death lists of some of the most important cities may give the clearest notion of what the world has suffered.

Marseilles lost in one month, 16,000; Florence, 60,000 altogether; Avignon, 60,000; Sienna, 70,000; Venice, 100,000; London, 100,000, according to Barnes and Rickmann.<sup>1</sup> These are not the highest estimates—Boccaccio (Intro. to Decameron) gives 100,000 for Florence, as against the 60,000 mentioned above; and 150,000 are the figures given by Gasquet (p. 37) and Anglada (p. 431) for Avignon; while Guy de Chauliac, who was a practicing physician there at the time, says (chap. V) that three-fourths of the population had the plague, and all who had it died. Moscow is said to have lost 200,000 in one visitation of the plague; during the "Great Plague," Webster says 150,000 died in Naples, or if we include the Neapolitan territories, the grand total reaches 400,000 (110:I, 190). Some places lost their 40,000 or 50,000 in a very few weeks. In many cities 1,000 or 1,500 in a day was not unusual when the plague was at its height;<sup>2</sup> and both Constantinople and Rome

<sup>1</sup> For these and other cities *cf.* Hecker: 23, 24; Sprengel: II, 606; Haeser: II, 126.

<sup>2</sup> It may well be imagined that the question of burial was a very serious one in times of such mortality, for the double reason that the dead were so many and the living so few. "There were scarcely enough left to bury the dead," is an expression used in all parts of the world. In fact, bodies were sometimes thrown into the street and left there for days (40:60). At Avignon the pope consecrated the Rhone so that bodies might be thrown into it (49:25). Michaud says (II, 287) that more than 400 bodies a day were counted floating down the Nile. As a rule, trenches served for graves; bodies were carried by

are said to have lost, at different times, as high as 10,000 in one day (49:22; 110:I, 69, 97). Different writers estimate that Italy lost half its population altogether, as a result of the Black Death (40:44; 49:26); Padua lost two-thirds, and Venice three-fourths,—the rest fled (40:26). In many places in France the pestilence carried off nine out of ten, according to Vitoduros (40:50). The number of Minorites alone who died in Italy is estimated at 30,000 (44:II, 139; 40:45). Both Walsingham and Wood have estimated England's loss at the same figures given for parts of France and Italy, *i. e.*, nine-tenths (49:25; 40:44; 1:413 f.); but others, more conservative, give it as three-fourths or even one-half.<sup>1</sup> At any rate, its severity in England was so great as to cause the king to prorogue parliament several times, and make a truce with France which broke off the hundred-years' war for six years (24:I, 177); also so great as to break up Oxford for a time, and seriously cripple it for many years; of the thirty thousand students claimed for the university by the chancellor, Fitzralph, before the Black Death, not more than one-third were back at work about ten years later (24:I, 189; 40:210).<sup>2</sup> Douglass says that three-fourths of Poland's population died. Germany's loss is estimated by Haeser and others at about 1,500,000 (49:26), 125,000 of these being friars of the "Barefooted" order (44:II 139). Many German towns of probably 200,000 were entirely bereft of inhabitants,—by death or by flight. Altogether it has been estimated that not less than 10,000 country towns and villages were left without a living soul (40:50). The king of Sweden said that scarcely a man escaped in Norway. A wilderness grew up where there had been civilization; lands were uncultivated; villages and houses were uninhabited and desolated. Not for generations did the country recover (24:I 191;

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the cart-load and dumped into ditches, hundreds—some say thousands—in one ditch (73 : I, 241). And we are told (73 : I, 179) that on many occasions, because of heartlessness or haste, people were buried alive.

<sup>1</sup> Among recent writers who believe that England lost half its population are Creighton (103a:II, 188), Corbett (103a:II, 190), Cunningham (p. 275-6) and Seebohm (pp. 93, 149); Prof. Thorold Rogers does not deny this percentage, but he believes (p. 191) that the usual estimate of 2,500,000 for England's total loss is too high, for that number, he concludes from a calculation based on the productive power of the land, is all that the country could have supported before the Black Death; Gasquet, however, having ascertained from the church rolls the number of the clergy, argues (p. 205, note) that on the basis of Rogers's estimate one man in every twenty-five was a priest,—a conclusion not easily accepted.

<sup>2</sup> One thing that shows how the Black Death impressed itself on the mind of the English, is the fact that documents were afterward dated from that event instead of from the reigning king, as had been customary (54 : I, 469).

40:68, 69). It is estimated that Europe altogether lost 25,000,000 during the reign of the Black Death, and China and the East, 36,000,000 (49:30). If these figures are even approximately correct it is probably true, as Hecker says (p. 30), that one-fourth<sup>1</sup> of the earth's inhabitants became victims of this terrible scourge.

In speaking of this universal desolation, Petrarch, who saw the ravages of the Black Death in Parma, expresses himself thus (*Epist.*: VIII, 7): "How will posterity believe that there has been a time when without the lightnings of heaven or the fires of earth, without wars or other visible slaughter, not this or that part of the earth, but well nigh the whole globe has remained without inhabitants? We ourselves should think we are dreaming, if we did not with our eyes, when we walk abroad, see the city in mourning with funerals; and returning to our home, find it empty, and thus know that what we lament is real." Petrarch was in a position to realize the awfulness of the pestilence, for besides seeing so much himself, his brother was in a monastery where he had to bury thirty-four of the inmates; and worst of all, perhaps, in his eyes, Laura, whom he has immortalized in his poems, died of the plague at Avignon.

It seems appropriate in this connection to quote another famous writer, Boccaccio, who, as already mentioned, was an eye-witness of the plague in Florence, in 1348. "What magnificent dwellings, what notable palaces were there depopulated to the last person! What families extinct! What riches and vast possessions left, and no known heir to inherit! What number of both sexes in the prime and vigor of youth, whom in the morning, either Galen, Hippocrates, or Æsculapius himself but would have declared in perfect health, after dining with their friends here, have supped with their departed friends in the other world" (*Intr. to Decameron*).

What Michaud says (*II*, 187), in regard to the uncertainty of life in Egypt, is equally true of many other places: "It was at the period of seed time that the plague was at its height;

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<sup>1</sup> Haeser (*II*, 137) estimates that the world lost from one-third to one-half of its population; Webster (*I*, 137), from one-half to three-fourths; Papon (*I*, 104), four-fifths. Against Hecker's estimate of 60,000,000 for the whole world, Anglada (p. 432) makes it over 75,000,000. According to Gibbon it should have been even greater, for the world's loss during a less severe scourge (the Justinian plague) was 100,000,000, he estimates (*V*, 503). But even if it be granted that these estimates are far too great it does not interfere with our purpose; indeed, if the figures are exaggerated it is due to the tremendous effect of the pestilence on people's minds; moreover, the belief in its great destructiveness would, even if false, produce some of the effects which we shall meet with later.

they who sowed the seed were not the same that plowed the fields; they who sowed lived not to reap the harvest."

These details concerning the plague will, it is hoped, prepare the way for a better understanding of what is to follow.

As great as were the physical effects of the plague, they were even greater, if possible, in the field of morals.<sup>1</sup> It is true, there were some cases of praiseworthy actions, splendid examples of devotion to duty, of heroism and self-sacrifice.

In Lübeck, while the Black Death was raging, people brought their gold and other valuables to the cloister to give to the church; finding the doors shut against all comers—to prevent, if possible, the entrance of the plague—they threw their goods over the walls (44: II, 149; 49: 24); many left their property to the church by will (97; 607). This, however, is not likely to appeal to one as an example of very great sacrifice, for with death at the door, men are not supposed to cling tenaciously to their worldly possessions. The sisters of charity in Paris astonished all by their fearless and devoted attention to the sick when more than five hundred a day were dying at the Hotel-Dieu; again and again their ranks were decimated by the plague, but volunteers were always ready to take the place of those who fell (49: 25; 40: 48). Monks and physicians, generally but not always, lost sight of self in ministering to others; even these deserted their post when the Black Death was at its height in Florence (40: 13, 25, 44, 47; Boccaccio, *Intr.*, 30: 53).

Gasquet mentions the fact that morals even improved in some places. At Tournay, France, where very rigid laws were made so as to shut off as much of evil influence as possible, the practice of swearing diminished, and dice were made into beads or "round objects on which people told their Pater Nosters," according to Li Muisis, Bishop of St. Martin's, in that city (40:52). But he recognizes the demoralizing influence of the plague: "Instead of turning men to God, it turned them to despair in all parts of the world. Writers of all nationalities describe the same dissoluteness of manners consequent upon the epidemic." (40: *Intr.* xvii). He further adds this from the continuator of William of Nangis: "People were afterwards more avaricious and grasping, even when they possessed more of this world's goods than before. They were more covetous, vexing themselves with contentions, quarrels and lawsuits.

<sup>1</sup>Other pestilences besides the plague, in fact, great calamities of all kinds, affect morals; but as the plague is, by far, the best single example, it—and particularly that form of it known as the Black Death—has been chosen for special consideration here, and other pestilences, famines, catastrophes, etc., will be noticed only incidentally.

Charity grew cold, wickedness with its attendant ignorance was rampant, and few were found who could or would teach children the rudiments of grammar in houses, cities or villages" (40:48). Manzoni, also, admits (p. 594) that there was good along with the bad: "There are some remarkable cases of virtue in public calamities, and in any long continued disturbance of settled habits, but an augmentation of crime is far more general. In this case [in Milan] the villains whom the pestilence spared and did not terrify, found in the common confusion and in the relaxation of public authority, a new opportunity of activity, together with new assurances of impunity." The vast majority, however, look wholly on the dark side and agree that there was an unstringing of the consciences of the survivors, which resulted in a lamentable outbreak of profligacy. In giving their opinion, I shall, in the main, let them speak for themselves.

To begin with, I shall quote from Boccaccio (Intr. to Decameron) in regard to the plague in Florence: "When the evil had become universal, all human feeling seemed to be gone; people fled from the sick to save themselves. Others shut themselves in, living aloof from others. No news of affairs outside was permitted. They spent their time in music, singing and other pastimes, but did not go to excess. Some considered eating and drinking to excess, amusements of all kinds, the indulgence of every gratification, and indifference to what was passing around them, as the best medicine, and they acted accordingly. They wandered day and night from one tavern to another, and feasted without moderation or bounds. They abandoned home and all property like men whose death-knell had already tolled. Amid the general lamentation and woe the influence and authority of every law, human and divine, vanished, and every one acted as he pleased."

Hecker (p. 49) puts it even more strongly, in these words: "Compassion, courage and the nobler feelings were found in but few, while cowardice, selfishness and ill-will, with the baser passions in their train, asserted their supremacy. In place of virtue, which had been driven from the earth, wickedness everywhere reared its rebellious standard, and succeeding generations were consigned to her baleful tyranny."

Tytler (pp. 3-4) speaks of moral degeneration, desertion of children by parents, and desertion of parents by children, of stealing and murder, and the cruel mode of preventing or punishing these (as by breaking on the wheel of torture) and also of the sick and suspects being killed,<sup>1</sup>—all of which indicate the tremendous effects of the plague.

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<sup>1</sup> Dr. Creighton (pp. 491 f.), quotes John Davies as authority for the statement that a person was drowned (by order of Sir Herbert Croft,

Assalini, who lived in the Levant during a scourge of the plague, agrees with the others when he says (p. 89) that "Our sick are separated from the rest of the family, and abandoned to their unfortunate lot, the mother even refusing to carry assistance to her own son during the agonies of death, and the husband not daring to approach the dearest object of his affections, who requests from him a drop of water, in a voice the most tender and supplicating."

Gabriel de Mussis (30: 53), who was a notary in Genoa when the Black Death reached there from Caffa,<sup>2</sup> describes scenes in his city exactly like those witnessed by Assalini in the Levant.

In speaking of the awful calamity that befell Muscovy, in 1603, when the plague and the famine combined claimed 500,000 victims, Noah Webster uses this language: "Parents devoured their dying children; cats, rats and every unclean thing was used to sustain life. All ties of nature and morality were disregarded; human flesh was exposed for sale in the open market. The more powerful seized their neighbors; fathers and mothers, their children; husbands, their wives, and offered them for sale" (110: I, 171-2; cf. 68: II, 187-9; 106: 48-9; 49: 30). These effects were probably due as much to the famine as to the plague; in general, it may be said that famine has quite as demoralizing and "denormalizing" an effect as the plague. According to Dr. Creighton (103a: II, 161) the severe famine in England in the early part of the fourteenth century not only caused people to eat the flesh of dogs and horses, but caused the inmates of jails (prisons were full of thieves) to fall on and devour any new arrival who had flesh enough to tempt them. Michaud, in his "History of the Crusades," in speaking of a famine in Egypt in the thirteenth century, says (II, 187) that famine rendered every man an enemy of his fellows, and made him insensible to pity, shame and remorse. In the same connection (p. 186), he says that this terrible pair (plague and famine) not only caused mothers to devour their children, but caused people "to dispute with worms the right to the spoils of coffins." He also adds that famine and voluptuousness formed a hideous union; that all the vices of the infamous Babylon prevailed; that impure love,

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one of the council of the Marches of Wales) in order to prevent infection; Papon (I, 179) gives a case of burying alive; Gasquet (p. 138) speaks of the same; in fact, many others could be given who agree with these.

<sup>2</sup>De Mussis was long believed to have spent the two or three years preceding the Black Death in Caffa, and to have been in that city during the siege, but recent investigation shows no break in his records as notary in Genoa till many years after the plague.

unbounded passion for play, with all excesses of debauch, were mingled with images of death;—and this among the crusaders themselves. Modern instances are cited by Mr. J. E. Scott and Mr. Julian Hawthorne, both of whom have recently seen the combined effects of plague and famine in India. The former saw a mother and her starving infant cruelly robbed of money which he had just given her. The latter speaks of cases in which even the maternal instinct was annihilated; children were robbed of food and left to starve even by their own mothers (48 : 380).

According to Gibbon (III, 206) the effects of violent earthquakes are the same: "Instead of the mutual sympathy which might comfort and assist the distressed, they dreadfully experience the vices and passions which are released from fear of punishment; the houses are pillaged by intrepid avarice, revenge embraces the moment and selects the victim; while vengeance frequently overtakes the assassin or ravisher in the consummation of his crime."

Mezaray (quoted by Papon, I, 123) says that war needs to be classed with the plague: "At all times it was a strange thing that neither the scourge of war nor that of the pest is able to correct our nation. The dances, the pomps, the games and the tourneys continued always; the French danced, so to speak, on the graves of their parents; they seemed to testify of their rejoicing over the conflagration of their house and of the death of their friends."

Returning to the Black Death, Villani says that among the effects on the survivors of the plague in Florence may be mentioned idleness, dissolute morals, sins of gluttony, banquets in taverns, unbridled luxury, fickleness in dress, and constant change according to whim. He also says that Christian parents deserted their children in a way that might perhaps be expected of infidels and savages.

In speaking of the Justinian plague, Procopius says that whether by chance or providential design, it strictly spared the most wicked. This statement is important in that it shows the general state of morality, but it is false in so far as it intimates that the wicked who were spared constituted the wicked half of mankind before the plague, and that the good half died; *i. e.*, this view overlooks the part played by the plague in bringing about the bad moral condition spoken of. Another writer speaks of it as being "a well ascertained fact, strange though it may seem, that men are not made better by great and universal visitations of Divine Providence. It has been noticed that this is the evident result of all such scourges. From Italy to England, it seemed to rouse the worst passions of the human heart, and to dull the spiritual sense of the soul" (40:216).

Wadding, the Franciscan annalist, says: "This evil wrought great destruction to the holy houses of religion. . . . From this time on, the monastic order began to grow tepid and negligent both in that piety and learning in which they had up to that time flourished" (40:216). Dr. Cunningham (I, 275) adds that the whole social structure was disorganized. Tournay, was not alone in having unmarried men and women live together as man and wife. So flagrant did this practice become in one or two places where the moral sense was not wholly lost, special laws were passed to prevent it (40:51). Langland, whose "Piers Plowman" was intended to correct the wickedness which followed the Black Death in England, speaks of this same species of immorality in his country.

We learn from Thucydides (III, 53), that the calamity was such at Athens that men grew reckless of all law, human and divine, for no punishment was feared; no fear of God or law of man deterred a criminal. The pleasure of the moment took the place of honor and expediency. Men resolved to enjoy themselves while they lived; they were bold in their indulgence in crime; and, as we might expect, worse forms of lawlessness were introduced into Athens than had been known there before.

Papon (I, 257) uses the following language: "Who would think that in the midst of horrors, so suitable, it would seem, for extinguishing the passions, there should be found two passions which should be carried to so high a degree,—libertinism and greed. Libertinism, aroused by the frequent occasions of satisfying it, fed itself by the excess which I am ashamed to describe." The streets were often the scene of the most revolting indecency and wickedness. Indeed it is said that pedestrians sometimes found it difficult to walk the streets at night in some cities, for, aside from the obstruction offered by the corpses scattered here and there, the street was used for unholy purposes by shameless libertines.<sup>1</sup>

Dr. P. Russel, who studied the effects of the plague at first hand in Italy, says (I, 311) this in regard to Genoa: "Amid so many dreadful fears and terrors, amid so many fetid and putrefying bodies, amid the shrieks, the sighs and the groans of the sick, what would you have expected? That people struck with dread and horror would remain sad, modest and quiet. But not so. They sang, played on instruments, danced;—Genoa was never seen so shameless and disorderly.

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<sup>1</sup>I am informed by eye-witnesses that scenes like this occurred in Galveston during the flood in 1900, and that hold-ups and robbery were so common, so daring, and so openly engaged in, it became necessary for the guards to shoot down the offenders. One of Nevada's mining towns was having a similar experience when the above was written.



. . . . There was gathered a vintage for the lasciviousness. Many marriages were celebrated in the lazarettos ; and many women, without shedding a tear for their husbands, immediately entered into new engagements.<sup>1</sup> One day in particular five marriages were performed—four of the bridegrooms being buriers of the dead, dressed in the clothes stripped from the bodies of the deceased.” And in regard to Messina at a later date, he quotes an Italian authority: “ It has always been observed that after every plague, those who recover are addicted in an extraordinary degree to lewdness and incontinence ;—this was surprisingly visible at Messina, and was carried to such a degree of frenzy that many were known to violate the dead bodies of virgins” (*loc. cit.*).

Bulwer is not far wrong in saying that “ the fiery pestilence was like a demon loosed from the abyss, to shiver into atoms all that binds the world to virtue and to law.”

The following extract from Haeser (II, 144 f.). will show the opinion of a modern German writer who is the author of an exhaustive history of medicine, and who has, therefore, thoroughly canvassed the whole field, and sifted all the evidence: “ A view of the moral condition is most depressing. It shows that even the greatest misfortune cannot turn the mind of men from the nothingness of the earthly, and fill it with the conception of a higher destiny. The loss in the moral realm was even greater than in the physical. Hardly had the terror of the Black Death swept over the people before all their lower passions broke forth more unbridled; and the more easily could they be satisfied through the rich inheritance of the too soon forgotten offering of the contagion. It seemed that the fearful proximity of death had only heightened their enjoyment and pleasure in life. The meanest sordidness took possession of men. . . . Crime exalted its head above shame, for no man was there to take the laws in hand. Theft and robbery took the upper hand, and even the evident danger of death did not frighten the unbridled gain-seeker away from taking possession of the unguarded property of the dead. Even the church was guilty here and there.” From the testimony of all these authors who have brought forward this array of facts in regard to the prevailing indifference, levity, frivolity and crime, accompanying pestilences, one is ready to conclude that there was an almost universal adoption of the fool’s motto, “ Eat, drink and be merry, for to-morrow you may die.”

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<sup>1</sup> Papon (I, 324) says that women were married within twenty-four hours from the death of their husbands; that sometimes they married four or five times in close succession,—they seemed to have a penchant for matrimony.

The striking similarity in these different accounts is really the best proof of their trustworthiness. When simple annalists of remote cloisters, business-like or courtly chroniclers of important cities, poets and *litterateurs* like Boccaccio and Petrarch, physicians like de Chualiac and Covino, and writers who are entitled to rank as historians, all show such similarity of expression, it is only because, as Gasquet says (p. 16), "the same ideas, the same words suggest themselves involuntarily to one and all; and it is only when we come to examine the whole body of evidence that there is borne in upon the mind a realization of the nature of a calamity which, spreading everywhere, was everywhere the same in its horrors, becoming thus nothing less than a world-wide tragedy, and it is seen that even the phrases of the rhetorician can do no more than rise to the terrible reality of fact."

Any account of the Black Death which aims to present the facts which are interesting from the psychological point of view, would be incomplete if it omitted certain of the superstitions connected more or less directly with the plague. The superstition which involved the Jews is one of these, and one, too, which, because of its consequence, should be given in connection with the facts which have just been described.

It was generally believed that the plague was disseminated by means of poisonous powders or unctions, and the popular hatred of the Jews led to the accusation of that people. They were supposed to have manufactured a poison from spiders, toads, bats and owls<sup>1</sup>—somewhat like that the witches brewed in Macbeth—and to have put it into wells and springs. The panic which this belief caused, is said to have seized all nations; in Germany it was especially great, and resulted in the wells and springs being built over so as to make it impossible for the water to be used. Thus whole towns were forced to use river water or rain water as long as the craze lasted (49:42).

The feeling against the Jews for this supposed poisoning became very intense, and showed to what extent even sensible people can be carried by a popular wave of irrational excitement. Germany seems to have been the scene of the most diabolical treatment of these people, though there were few places where they were not regarded as outlaws, and either banished or burned (97:II, 608). All classes bound themselves by an oath to extirpate the Jews by fire and sword (49:42). In Basle, the populace forced the burgomasters and senators to bind themselves by an oath to burn all Jews then in the city,

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<sup>1</sup> Cf. Hecker, 40; Gasquet, 41; Haeser, II, 156.

and to forbid any of that nationality from entering it for the space of two hundred years. So without sentence or trial, all the Jews in Basle were collected into a wooden building and burnt together with it (*loc. cit.*). Shortly after, the same thing happened at Freyburg, and Bennefeld in Alsace (*loc. cit.*). At Spire the Jews assembled in their own dwellings and set fire to them, and thus consumed themselves and families, preferring to die by their own hands rather than furnish a holiday for this savage multitude. The senate reserved to itself the right to search for treasure in the ruins. Many Jews were murdered in the streets and their bodies put into empty wine casks and rolled into the Rhine (49:43). When these wild passions were linked with religious fanaticism, such as we shall see later in the Flagellants, we find the most damnable practices. Some thought they could appease the wrath of an offended God by converting the Jews, and they set about the task with a zeal that knew no bounds. The Mohammedans could never have been more radical, unreasonable or cruel than these so-called Christians. At the point of the sword many Jews pretended to be converted, but later, some of them, preferring death to a living lie, slew themselves. Finally there arose a desire—a zeal, on the part of the Jews, to die as martyrs (49:44),—a fact that is interesting from our point of view. At Eslingen, the whole Jewish community shut themselves up in their synagogue, and set fire to it (44:II, 157). At Mayence, a conflict between the Jews and a body of religious fanatics (of whom we shall learn presently) resulted in the death of twelve hundred Jews, most of whom burned themselves in their own houses (49:44; 44:II, 157). The same thing took place at Munich, Constance, Ulm, Augsburg and other places (1:422; 44:II, 157). When the Jews were burned for rejecting Christianity, it was not unusual for a mother to throw her infant into the flames, rather than see it baptized, and then leap in after it (49:44; 44:II, 158).

Thus on both sides we see what may be called mental aberration, on a scale never seen before or since, in the history of the world. But it would be unjust to those times not to mention the fact that there was some humanitarian spirit left, especially, it would seem, among those in authority. The deputies of Strasburg voted against the punishment of the Jews, in the convention at Bennefeld. Pope Clement VI, protected the Jews at Avignon, and admonished Christians everywhere to quit such groundless persecutions,—but all in vain. Emperor Charles IV did what he dared, to protect them, but he could not prevent the Bohemian nobles from releasing themselves from their Jewish creditors; in some places the authorities even forced the Jews to return the bonds they held against others

(49 : 45; 44 : II, 159). The Duke of Austria pillaged and burned many of his own cities that had been guilty of persecuting the Jews (49 : 45),—but this was a strange way to show a humanitarian spirit; probably it furnished him a pretext to gather wealth for himself. Notwithstanding the good intentions manifested in their behalf, the Jews could have but little assurance of safety except in distant parts of Europe; thus Lithuania became for the second time a place of refuge for them (49 : 46; 58 : 1929).

Before leaving the Jews we should notice one thing particularly, *i. e.*, that confessions were wade by many who were innocent.<sup>1</sup> Similar confessions have often been extorted from witches, or even made by them voluntarily, and that, too, when escape from punishment could not be hoped for as a result of confession. The same thing is met again in lycanthropy; and, indeed, as has been remarked, it is unusual for very many to believe for any length of time that something extraordinary is being done without some one coming forward who believes himself guilty.

Another superstition which brought serious results in an entirely different way, was the belief that a religious procession<sup>2</sup> would be the means of staying the plague, whereas no more efficacious means could possibly be devised for its spread. In Milan, Avignon, and practically all the cities from Italy to England, elaborate and quite spectacular processions, in which thousands took part, were of common occurrence during the Black Death, and other visits of the plague; indeed, the custom did not end with the Middle Ages,—it is practiced to-day in India, and the Philippine Islands, and probably in other places. At Oberammergau, the people resorted not to a religious procession but to a religious play,—they made a vow that if God would stay the pestilence, they would honor Him by

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<sup>1</sup> The confession of a number of Jews at Chillon, September, 1348, caused the persecution of their race to be much greater than it would probably have been. Konigshoven has preserved the original proceedings of this trial, extracts of which are given in the appendix to Hecker.

<sup>2</sup> The simplicity and superstition of even the higher classes as late as 1475 is well shown by the fact recorded by Rydberg (90:362) that the bishop of Lausanne issued a letter of excommunication to the insects which were infesting parts of Switzerland. The letter began thus: "Thou irrational creature, thou May-bug, thou whose kind was never inclosed in Noah's ark; in the name of the Bishop of Lausanne, by the power of the glorified Trinity through the merits of Jesus Christ, and by the obedience you owe the Holy Church, I command you to depart from all places where nourishment for man and cattle germinates and grows." They were, moreover, summoned to trial and an attorney duly appointed to defend them, the summons being solemnly read by a priest in the churchyard at Berne (*loc. cit.*).

producing this play once every ten years forever,—and so we have had the Passion Play through all the succeeding centuries.<sup>1</sup>

Not only is it believed that the plague was spread and the mortality increased by superstitions that led to processions, and by superstitions such as those that prevail in India to-day, and thwart every effort of the English government to stamp out the plague; it is confidently believed that the popular state of mind had a direct effect on the death-list. In the introduction to the *Decameron*, Boccaccio, recognizing the principle that "pleasant thoughts are the best preventive," represents a group of persons as withdrawing to a quiet place in the country, and giving themselves up wholly to pleasure. All innocent sports and amusements were sought, but no one was permitted, under any circumstances, to bring any bad news, or mention anything of an unpleasant nature. The duty of devising new plans for passing the time pleasantly fell, each day, to a "queen" appointed for that special purpose. Story-telling was suggested by one,—and the *Decameron* was the result. Bulwer, following Boccaccio, has a crowd of pleasure seekers in his "*Rienzi*." And this was not merely a novelist's fancy—there was an historical basis for what both writers do. Pleasure parties were actually organized. About the time the Flagellants were so active companies were organized, or rather the members came together without any organization, and marched from city to city, engaging in the wildest revels. As bad as these people were, they were often taken for the Flagellants (who, as we shall see, were an avowedly religious body), so much alike were their nocturnal debauches. There were some, who, avoiding this excess, chose a middle course, and followed literally Assilini's advice (p. 93): "Banish melancholy and fear, live well, and avoid all excess; if you read, choose amusing books,—not those that treat of the plague." This calls to mind the law passed in some cities, forbidding the publication of the death list because of the depressing effect on the sick; and also the law against funeral bells, for the same reason, at Tournay, Florence and other places (40:52; 49:26). Papon believed in the power of the mind over the body, for in various places he expresses the opinion that "the

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<sup>1</sup> The history of the "*Marienlied*" is recalled in this connection. When Goldberg, Germany, was apparently bereft of all its inhabitants, one man came forth from his hiding place, and believing himself to be the only one spared began to sing the famous song. A responsive voice from a near-by house revealed a second survivor; together the two marched through the streets of the dead city singing, and were joined by others till they numbered twenty-five—all that were left alive. It was Christmas morning, and the hour was two o'clock; at the same hour every Christmas morning since that time, the people have marched through the streets of that town singing the "*Marienlied*."

solicitude, the abandon, the lack of all things produced diseases without number" (73:181, 312). Thucydides says that "people who abandoned themselves to despair threw away the one chance of life" (III, 47 f.). All this harmonizes with the remark of Assalini, Papon and others, that persons of sanguine temperament resisted well (6:31). The influence of the mind is further shown in the statement of Gasquet (p. 47) that sickness and death often result from the imagination. Furthermore, fear played an important part in augmenting the death roll,<sup>1</sup> so most writers on the subject believe (49:277; 40:11, 47). Dr. P. Russel, during his stay in Italy, became thoroughly convinced that "the plague often followed the panic fear of it;" he believed that the latent infection was excited by terror (106:262). Antes (pp. 44-6) accounts for the greater mortality among the lower classes by their greater superstition. Rivinus attributes the propagation of the plague in Leipzig to fear; Willis maintains that those who fear small-pox are the first to be attacked; Chiene says it is the same with all epidemics, and Dr. Rogers agrees with this when he says that fear has much to do with the spread of all contagious diseases (52:14). Dr. Quintero, who was a hospital physician in the Canary Islands, says (pp. 14 f.) that fear made the epidemic of yellow fever much worse; he adds that his imagination got such control over him that he showed the symptoms of the disease, and had to be removed from the midst of the sufferers. A modern medical authority, Dr. C. L. Tuckey, writing on psycho-therapeutics (Wood's Medical and Surgical Monographs VIII, p. 728), says there are fear-begotten diseases of almost all kinds, among which he specifies measles, cholera, and plague. Sir F. A. Swettenham, in the preface (p. viii) to his recent book, "The Real Malay," tells of a medicine man selling "charms" to the natives to prevent the epidemic. To use his own words, "The Black Death has a way of attacking the fearful; but the Destroying Angel passes by the door of those who sleep in the happy confidence of security through the possession of a bit of magic string."<sup>2</sup> The comparative immunity of the Mussulmans (remarked by Dr. McLean, who lived among them) cannot be accounted for except on the basis of the influence of the mind on the body; their fatalism, although it keeps them from all precaution, frees them from fear and terror and low spirits. Personal information from Profs. G. T. Ladd and E. Washburn Hopkins,

<sup>1</sup> De Foe says that in London, in 1665, twenty-three deaths were reported as caused by fear; sixteen in 1666, and seven in 1667—one death being the average for ordinary years.

<sup>2</sup> A similar explanation might be given of the sprinkling of blood on the lintels and door-posts during the last of the plagues of Egypt.

both of whom have recently studied the plague at first-hand in India, confirms this position. And not only are fatalists less likely to be attacked by the plague, the same is true of those who for any reason consider themselves immune, as in the case of the Parsees, who, according to Prof. Hopkins, were among the last to take the plague, but who died very rapidly when they did take it, for they became convinced that they were not immune, and naturally their equanimity gave way to fear and terror. In the palace at Versailles is a picture representing Napoleon visiting plague patients in a hospital in Egypt; and we are told that the great general went among the sick in order to prove that a strong will could resist the disease (III:126).

In brief, we have seen that melancholy and fear are the two ominous precursors of the plague; we have seen that the consensus of opinion, the universal agreement of physicians and other scientific men who have had personal knowledge, is that fear prepares the way for pestilences and epidemics of all kinds, while on the other hand, fatalism (which knows no fear) makes the Mohammedans comparatively immune.

In regard to this question the position has been taken that we know nothing of the relation of mind and body, and that facts such as those given here, although they may prove the coincidence or concomitance of great fear and great mortality, cannot prove the causal connection between mind and body, since fear is probably a *symptom* rather than a *cause*.

The objections to this criticism are (1) that it fails to disprove the theory it is aimed at; (2) that it is superficial; (3) it is self contradictory; and (4) it is otherwise unscientific. It fails to disprove, for it is certainly no simpler to assume that fear is produced by disease than to assume that disease is caused by fear. It is superficial to assume that fear in those who have the plague is caused by infection when the fear manifested by the thousands who escape the disease must be accounted for in a wholly different way. A theory that rejects the interaction of mind and body (by denying the causal power of fear) contradicts itself when it assumes that fear is a symptom or effect of the disease. Such a theory is further unscientific in violating the law of parsimony, which forbids the adoption of a more difficult explanation when a simpler one is possible. And no other theory will so simply and satisfactorily account for the facts met with in a study of pestilences, as will the theory that there is causal connection between mind and body, and that there is a causal power or force in fear.

## II. THE FLAGELLANTS.

The history of the Flagellants is closely connected with the

history of the plague, as will be remembered from their taking part in the persecution of the Jews, and as will be seen from what follows; but as we are going to study a class of distinctively psychical epidemics, the craze of the Flagellants may be included among them, rather than as a part of the history of the plague.

The Flagellants were people with avowedly religious intentions, who sought to avert the plague by doing penance themselves, and by bringing others to repentance. A band of this kind came together in Hungary in 1349, while the Black Death was devastating Europe; later they found their way into Switzerland, Germany, Poland and several other countries (49: 34 ff.; 44: II, 152 ff.; 97: II, 607-8).

It is true, such an order had existed in the thirteenth century; it first began in Italy in 1260 and spread almost over the world, during that year and the next (49: 36 f.; 44: II, 152 ff.). The purpose of this was to arouse humility and penitence. While in externals this was much like the one in 1349, the latter is more interesting from our point of view, for two reasons. First, without doubt the general state of mind in Europe as a result of the terrible ravages of the Black Death, had much to do with the organization of the Flagellants, and even more in making it a psychologically interesting affair; in the second place, the reaction on the mind brought about by the actions of the Flagellants seems to have been greater, and, as Haeser says, the mental disturbance was far more significant in 1349 than in 1261 (44: II, 152). Hence we shall confine our attention to the case in which the plague figures.

Those who first took part were mainly of the lower classes. The sincerity of most of them is not questioned; they are said to have been "seized with a deep sense of contrition, and so resolved to forsake their vices and make restitution for past offenses" (49: 34). There were doubtless others who "joyfully availed themselves of this pretext for idleness, and were hurried along with the tide of distracting frenzy" (*loc. cit.*). Later, others from the higher classes joined the brotherhood,—even nobles and ecclesiastics and nuns, also other women of high repute, and even children. They marched in an orderly manner from city to city, singing as they went, their heads covered to the eyes, and their gaze fixed upon the ground; they wore a red cross on their breast, cap, and back. In their hands they carried scourges, on the order of the cat o'nine tails, knotted in several places, and pointed with iron (49: 34). In front of the procession, banners and tapers were borne. Wherever they went they received the warmest welcome; bells were rung to celebrate their arrival; people flocked from all quarters to listen to their singing and witness their penance.



Their daily programme, as given by Hecker (p. 376), was as follows : "Penance was performed twice every day. Morning and evening they went abroad in pairs, singing psalms amid the ringing of bells; and when they arrived at the place of flagellation they stripped the upper part of their bodies and put off their shoes, keeping on only a linen dress reaching from the waist to the ankles. They then lay down in a large circle, in different positions, according to the nature of their crime, . . . and were then castigated, some more and some less, by their masters, who ordered them to rise, in the words of the prescribed form. Upon this, they scourged themselves, amid the singing of psalms and loud supplications for the averting of the plague."

The band that entered Strasburg was two hundred strong; but when it left it numbered over a thousand, so many recruits had it received (49:34 f.). It is said to have grown almost to the proportions of a tribe; and for several months new crowds arrived daily to join it. At Spires two hundred boys, not over twelve years old, organized themselves into a band of Flagellants, and wandered around like those who took part in the children's crusade a century before (49:35). All the inhabitants of this town were carried away with excitement. They invited the boys to their homes, and showed them every possible attention. With every pilgrimage the reputation of the juvenile Flagellants increased. The reputation of the bands of adults, on the other hand, became bad; while they engaged in religious exercises during the day, the night was given up to the wildest orgies. When this was found out they were no longer received with kindness (49:38 f.).

But whatever may be said of them toward the end, they showed every sign of seriousness at the beginning, . . . they had strict regulations that could not be violated except under penalty of the lash; each one must provide himself with a certain amount of money, in order not to be burdensome to the people, and no one must seek free entertainment or even enter a house uninvited. And all conversation even, between those of opposite sex, was forbidden. But, unfortunately, these rules were not lived up to very long; degeneracy soon crept in and all sorts of crimes were committed. When they became unscrupulous, and realized the power that numbers gave them, they became a real menace to civil and religious authority. Especially strong was the antagonism between them and the church. "They gained more credit," says Hecker (p. 38), "than the priests, from whom they so entirely withdrew themselves that they even absolved one another; besides, they everywhere took possession of the churches." They claimed to heal the sick by supernatural power, and to

work miracles in other ways. In one of their meetings a letter was read which purported to have been written by an angel, urging them to penitence, and promising Christ's blessing to all who would scourge themselves and wander for thirty-four days (49:38).<sup>1</sup>

While the vow demanded of those joining at first, obligated them for only thirty-four days—the number mentioned in the “angel's letter,”—the plan was finally made to form a compact for thirty-four years (49:38), probably with the aim, on the part of the leaders, of forming a permanent league against the church. But the prompt and vigorous action of Emperor Charles IV, and Pope Clement prevented the carrying out of the scheme (49:38; 97: II, 608; 44: II, 157).

The tide had completely turned; the Flagellants had overreached themselves and had brought condemnation on their own heads. They were driven from every place they attempted to enter, and were hounded with bitter persecutions, as if they had been the cause of every misfortune. One of their masters was publicly burned. The Pope interdicted their public penance, and forbade the continuance of their pilgrimages, on pain of excommunication (49:39, 40).

It is evident, says Hecker, that the gloomy fanaticism which gave rise to these pilgrimages and processions of the Flagellants would infuse new poison into the already desponding minds of the people. They were carried into that “barbarous enthusiasm” which made that horrible persecution of the Jews possible.<sup>2</sup>

### III. THE DANCING MANIA.

In the last half of the fourteenth century, which we have already found to be so prolific of strange maladies, the dancing mania, one of the most interesting epidemics in the history of the world, broke out in Germany and the Netherlands, and continued for more than two centuries (49:87; 97: II, 605 f.; 44: II, 172). It assumed different forms in different localities and different centuries, and so is not always known by this same name. For our purpose, no distinction need be made

<sup>1</sup> Haeser (II, 153) thinks this letter incident was connected with the Flagellants in 1261.

<sup>2</sup> Flagellants were found in Abyssinia in 1820 (49:137); and the same year a procession passed through the streets of Lisbon (69:936). Indeed, they are to be found (under the name of Penitents) among the Latin races at the present time. In a number of Mexican towns they appear quite frequently in processions, inflicting the severest punishment on themselves and on one another, even going through the form of crucifixion, but stopping just short of death (69:936). Flagellation is practiced by certain Russian sects to-day, and Stoll (p. 375 f.) says it is also to be met with among the Mohammedans.

between St. Vitus's dance and St. John's dance. In the following account some of the facts relate to one and some to the other.

In 1374, bands of men and women appeared in the streets of Aix-la-Chapelle, who were "united by one common delusion." Hecker (p. 87) gives the following description of their actions: "They formed circles hand in hand, and appearing to have lost all control over their senses, continued dancing, regardless of the bystanders, for hours together, in wild delirium, until at length they fell to the ground in a state of exhaustion. They then complained of extreme oppression, and groaned as if in the agonies of death, until they were swathed in clothes bound tightly round their waists, upon which they again recovered and remained free from complaint until the next attack. This practice of swathing was resorted to on account of the tympany which followed these spasmodic ravings, but the bystanders frequently relieved patients in a less artificial manner, by thumping and tramping upon the parts affected. While dancing, they neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits whose names they shrieked out; and some of them afterward asserted that they felt as if they were immersed in a stream of blood, which caused them to leap so high.<sup>1</sup> Others saw the heavens open and the Saviour enthroned with the Virgin Mary, according as the religious notions of the age were strangely and variously reflected in their imaginations." Indeed, we are told that many of the dancers so completely lost their senses as not to be able to take care of themselves; in the extravagance of their actions some ran against buildings or other objects and killed themselves; others rushed into rivers and were drowned (49:130 f.).

The dancers were greatly affected by music; the magistrates in some places took advantage of this fact, and hired musicians to play for them in order that the dancers in trying to keep time to the lively tunes which were played might be exhausted more quickly; the same end was sometimes sought by hiring athletes to go in among them (49:91, 104). This extreme exhaustion of the body usually allayed the excitement of their disordered nerves, and calmed their minds.<sup>2</sup> The point of ex-

<sup>1</sup> Many, knowing what convulsions they would be subject to, took the precaution to hire confidential attendants to see that they were not guilty of any impropriety (49:105).

<sup>2</sup> When one felt an impulse to dance, the best thing to do was to let him dance; but relief was sometimes secured in other ways. One plan was to dash cold water on the patient, or better, plunge him into a pool or a stream,—a plan practiced by Paracelsus; another plan was to scourge the patient.

haustion was very difficult to reach in many cases; some could dance for several days, almost without ceasing, and it is reported of one woman that an entire month was required for her to find relief (49:104). The endurance of these dancers is almost incredible; that they were able to go to such extremes of violent action without serious injuries if not some fatalities, seems remarkable. But sufferers from this malady could do with impunity what would be impossible for one in the normal condition. This extraordinary power was attributed by some to the evil one, and the mania was called the "demoniacal disease" (49:88 ff.; 44:II, 175; 97:II, 605). There were some cases of permanent injury and loss of mind.

Although the mania began in Germany it soon spread over the Netherlands. In Liege, Utrecht, Tongres and other cities in Belgium, bands of dancers appeared. Often they decked themselves with flowers; and usually they wore a girdle so that a bystander, by inserting a stick and twisting, might relieve tympany when the paroxysm was over (49:89).

"Wherever the dancers appeared, the people assembled in crowds to gratify their curiosity with the frightful spectacle." Many of these spectators who had come out of curiosity and for amusement, fell under the spell, and entered the ring of dancers,—reminding one of those in the "Deserted Village," who "came to scoff, but remained to pray." Besides this curious crowd, there were many parents anxiously seeking their children, and friends seeking friends who might be in the "misguided multitude" (49:89).

As in the case of the Flagellants the number of these dancers increased to an alarming extent. As a rule when they entered a town or village, they took possession of the churches and other religious houses (49:89; 97:II, 606); and again, as in the case of the Flagellants, they were received with great kindness; processions were held in their behalf; also masses were said and songs were sung, with the hope that the influence of the evil one might be removed by these means. Some of the priests even tried exorcism, for their own influence seemed to be menaced, and even their destruction seemed to be threatened by the increasing number of those "possessed," since they constantly breathed out imprecations against the priests (49:90). Furthermore, the public generally feared these fanatics, who were easily excited by the most trivial things. For example, they showed such dislike to pointed-toed shoes, which had recently come into fashion, that it was deemed advisable by the authorities to issue an ordinance that no one should wear any but shoes with square toes (49:89). But even to a greater extent were they irritated by the sight of anything red (49:89; 44:II, 175); indeed they acted like

infuriated animals under these circumstances. Some were thrown into a state of excitement by the sight of any one weeping (49:90).

We find this disease raging quite severely in Metz and Cologne some time after its appearance at Aix-la-Chapelle (44:II, 172; 49:90). At Cologne there were about five hundred dancers, and at Metz more than a thousand. Hecker (p. 90) gives the following description of what occurred at these places: "Peasants left their ploughs, mechanics, their workshops, housewives, their domestic duties, to join the wild revels, and this rich commercial city became the scene of the most ruinous disorder. Secret desires were excited, and but too often found occasion for wild enjoyment; and numerous beggars, stimulated by vice and misery, availed themselves of this new complaint to gain a temporary livelihood. Girls and boys quitted their parents, and servants their masters, to amuse themselves at the dances of the possessed, and greedily imbibed the poison of mental infection. Above a hundred unmarried women were seen roving about in consecrated and unconsecrated places, and the consequences were soon perceived."

It is not strange that in times of such demoralization there were many who determined to profit by the condition of affairs. Some, seeing how well the roving bands of dancers were cared for, shrewdly conceived the idea of pretending to be possessed; and, practicing till they could imitate the dancers perfectly in their gestures and even in their convulsions, they began their wanderings, and for months they succeeded in practicing their impostures (49:91).

There is something psychologically interesting in the way the names of St. John and St. Vitus became connected with this form of the disease. As far back as the fourth century John the Baptist's day was observed. To the original customs, which were said to be strange and rude enough, relics of heathenism were superadded; bacchanalian dances became a part of the celebration (49:94). It is thought that the wild revels of St. John's dance in 1374, gave rise to the dancing mania, for the crowd that appeared at Aix-la-Chapelle continually called upon St. John's name (49:96). It may seem impossible that a festival could bring about so serious a consequence; but it must be remembered that the effect was cumulative—it held over from year to year. And besides, it is probable that other factors entered in, and that this was a culmination of a series of events, the product of a variety of causes. Neglecting for the time the reign of superstition in the preceding years and even centuries, we find certain facts which immediately preceded this breaking out, and which probably had some influ-

ence. Great parts of Germany knew no such thing as law; the barons were waging constant warfare on one another; there was no security of property, and even life was not safe; corruption of morals was the rule; the hatred and persecution of the Jews knew no bounds; besides, the masses of the Germans themselves were, as we might infer from the facts already before us, wretched and oppressed; add to this two other facts, (1) that the Rhine and the Maine had overflowed their banks and wrought immense damage, increasing the misery and distress to which the inhabitants had already been reduced; and (2) that the consciences of many were tormented with the recollection of crimes which they had committed during the prevalence of the Black Death,—tormented to such an extent that, as Hecker says (p. 96), “their despair sought relief in the intoxication of an artificial delirium,”—and then we can understand how the celebration of St. John’s day could “bring to a crisis a malady that had been long impending.”

Haeser, who agrees in the main with Hecker, goes a step further in trying to account for the breaking out of the mania in Germany. It is his opinion that the interdict of Pope John XXII, on the Emperor Ludwig (by which the churches were closed, by which also they were denied absolution and the benediction at death,) stirred the sensitive minds of the people, and was thus an added factor in precipitating the trouble (44: II, 174 ff.).

St. Vitus is connected in a somewhat different way (49:93 f.). He was a Sicilian youth who suffered martyrdom in the year 303. In 836, when his body was transferred to a new burying ground, he was raised to a higher rank, and not unnaturally, his altars increased in number. People had recourse to these when in distress, and besought his aid as a powerful intercessor. It is claimed that the legend which connected his name with the dancing mania was invented in the fourteenth century. The report gained currency that, just before his death, St. Vitus prayed to God that he might protect from the dancing mania all those who should “solemnize the day of his commemoration;” the legend went on to say that his prayer was accepted, and that a voice from heaven made known to Vitus the fact of this acceptance. Thus St. Vitus became the patron saint of the dancers; and his name was applied to our modern disease because of its resemblance to the dancing mania of the Middle Ages.

After the disease spent much of its force, after the regular pilgrimage of the dancers ceased, annual outbreaks occurred for some time. In these annual attacks a strong psychological effect is apparent. St. John’s festival, which was held in July, and St. Vitus’s day, June fifteenth, were looked forward to as

great events, and naturally so, in view of the history of the preceding centuries. All minds were centred on the festival long before it came off. For weeks beforehand people, especially those who had suffered before, "felt a disquietude and restlessness which they could not overcome. They were dejected, timid and anxious, wandered about in an unsettled state, being tormented with twitching pains which seized them suddenly in different parts" (49:105). When St. John's Day came and they danced at the altars of either St. John or St. Vitus, if for a few hours only, they received complete relief for the rest of the year,—or until the day for the festival drew near again. These occasional cases are met with as late as the end of the first quarter of the seventeenth century. The benefit that these and the dancers of the preceding centuries received, came not only from their exercise and the consequent exhaustion, but also from the simple belief that St. John and St. Vitus had power to help them.

The dancing mania in Italy assumed a somewhat different form, hence, it is necessary to speak of it separately. It was called tarantism in that country because it was supposed to be caused by the bite of the tarantula. Much of our information comes from Perrotti, who was a lecturer on medicine and other sciences at Bologna about the middle of the fifteenth century (49:110). Later writers agree with Perrotti as to the effects of the tarantula's bite. Melancholy usually followed, and the victim's senses were deadened to a considerable degree. In almost all cases, those who had been bitten were very susceptible to the influence of music (49:116); and would respond to a favorite tune by shouting, leaping and dancing until completely exhausted, when they would sink to the earth almost lifeless. Some, however, could not be roused from their state of melancholy, but continued downcast; their misery and anxiety showed itself in weeping. Still others "fell morbidly in love." Reports of such effects as these, from the bite of venomous serpents and insects, are to be met with at different times from the twelfth century on (49:113); and the uneasy state of mind, the fear, the dread, that took possession of the people, together with the effects of these mental factors, bring this disease within the field of our inquiry.

There seemed to be no relief for the sufferers except that which music afforded (49:118). In a sense, music seemed to be the cause and also the cure, for one who was bitten could be roused from his state of melancholy to the wildest fits of dancing by musical instruments; and these fits could be relieved only by continuing the music till the dancer was completely exhausted. Hence it is not strange that "cities and villages alike resounded throughout the summer season with the notes

of fifes, clarinets and Turkish drums." Hecker reports Alexander ab Alexandro and Matthioli both as giving very interesting examples of the effect of music. The former saw a young man seized with a violent attack of tarantism. When the drum sounded he began to dance, gradually increasing his quickness and violence until the dance became a succession of wild leaps; in the midst of this performance, the music stopped suddenly, and he fell senseless to the ground, and did not move again until the music started up, then he went through with the dance as he had done before (49:116 f.).

Matthioli, who was also an eye-witness, speaks of similar cases. He says that "however tortured with pain, however hopeless of relief the patients appeared as they lay stretched on the couch of sickness, at the very first sound of those melodies that made an impression on them,—they sprang up as if inspired with new life and spirit, and unmindful of their disorder, began to move in measured gestures, dancing for hours together without fatigue, until, covered with a kindly perspiration, they felt a salutary degree of lassitude, which relieved them for a time at least, perhaps even for a whole year, from their dejection and oppressive feeling of general indisposition" (49:118). In this case, as in the former, the cessation of the music before complete exhaustion, had injurious effects. So important was it to have music to alleviate the sufferings of these miserable beings, musicians were employed for this special purpose (49:118).

As with St. John's and St. Vitus's dance, tarantism was worse in summer than at other times of the year; and also, as in the case of those diseases, as summer approached and the time for the annual dance drew nigh, those affected began to feel uneasy and restless. There were regular gathering places, where they met and danced off their madness.

Many showed an abnormal fondness for water; some held glasses of water in their hand while they danced, or had large vessels standing near; in extreme cases persons are said to have been irresistibly attracted into rivers, and drowned, as in the dancing mania in Germany (49:120). The sufferers from tarantism abhorred certain colors, as did the dancers in the northern countries, but strangely enough they liked red, which was unbearable to the St. Vitus dancers.

Not all kinds of music were equally efficacious. Experiments showed what style was best for the various forms of the disease, and composers made their music to suit the patients. A composition intended for the dancers was called a tarantella. A number of these tarantellas have come down to us. It is thought by some that music in Italy received quite an impetus in both composition and performance, as a result of the added



practice made necessary by this mania, in fact, the real beginning of the development of a musical talent among the Italians is referred by some to this period (49:116)

Many of the victims of tarantism had not been bitten by a tarantula at all, but, if they believed they had, the result was the same; and it was easy for a disordered imagination to transform a harmless insect into a tarantula. Besides, it is by no means certain that what they called a tarantula was really poisonous, but their belief that it was, and that it would lead to such terrible consequences, made possible such results as we have seen.

Although this malady was found in Abyssinia as late as 1825, it had long ceased to be epidemic in Europe, having reached its height in the seventeenth century.

Even in its decline and disappearance, it is interesting from the psychological point of view, for it was undermined by certain sceptics who considered it an imposture, and believed they had proved it to be such, by showing from experiments that the tarantula's bite would not produce the results believed to be caused by it (49:132). When they convinced the people that the tarantula was not poisonous, the disease died out,—a fact which shows the influence of the mind in producing it. To deny the genuineness of tarantism is difficult, for an imposture that could succeed for four hundred years would certainly be remarkable.

Long before tarantism or St. Vitus's dance, *i. e.*, in 1021, we find an account of a disease which bears a strong resemblance to that of the fourteenth century (44:11, 171; 49:98). But tradition has so colored this that we cannot be sure of the facts. The story, as it comes down to us, is to the effect that a dozen or more persons, who had disturbed public worship, had a curse pronounced upon them by which they were condemned to dance and scream for a whole year. At the end of this time, they fell into a three days' sleep, and four of them died. Another version says that, at the end of their dance, they sank into the ground up to their knees, but this could easily have grown out of the statement that they sank to their knees. According to both versions, those who survived, suffered the rest of their lives from a trembling of their limbs. How much of this is true, or whether any of it is true, is not our question, and is not of importance to us;—what is of importance is the fact that this was believed; this belief fed the flame of superstition which had already a superabundance of fuel in those years. And again, in 1278 (44:11, 172; 49:97), a crowd of about two hundred assembled at Utrecht, and danced on the Mosel bridge while waiting, as one writer says, for the Host to be brought by; in the midst of their dance the

bridge broke and the dancers were all drowned. Previously to this, however, *i. e.*, in 1237 (40:97), more than a hundred children were seized with the dancing disease at Erfurt, and began a journey to Armstadt, dancing and jumping as they went. By the time they reached Armstadt, they were completely exhausted; some of them died and some were affected with trembling to the end of their lives. What the immediate cause of this was, I have been unable to learn, but, in all probability, this is closely allied to the "children's pilgrimage," which had taken place a short while before (in 1212), and of which religion was the inciting cause.

#### IV. THE CHILDREN'S CRUSADES.

Haeser quotes Hecker with approval to the effect that this pilgrimage, known as the children's crusade, is as good an example as the dancing mania of the pathological condition of those who took part (44:II, 177). A brief account of the crusade will incline one to accept this view as correct.

The date has already been given as 1212, though some place it one year later (44:II, 177). Only a short time before this Constantinople fell into the hands of the crusaders (1204), and the people were in consequence wrought up to a high pitch of excitement. This had a great effect on the minds of the youth, for the mind is so impressionable at the period of adolescence; and as a result two crusades were undertaken, one in France, the other in Germany. The one in France was probably brought to a focus by the religious processions so common at that time. Immediately after one of these, a crowd of children got together under the leadership of a shepherd boy named Stephen, who claimed to be divinely directed. He gathered round him an army of thirty thousand, mainly boys and girls, but a few older persons, and started on the way to the holy land, waving flags, and singing songs. When they reached St. Denis the king tried to turn them back, but neither advice nor command availed. They marched to the Mediterranean and thence to Marseilles. Much enthusiasm was aroused by these children, and they were everywhere kindly received.

At Marseilles they took ships for the East, but two of the ships foundered in a storm, near Sardinia, and all on board perished. In their memory the pope founded the "Church of the Innocents" near the place of the disaster. Most of those that were not drowned suffered a worse fate, for through the treachery of two merchants at Marseilles, who had offered to conduct them into Syria, they were carried to Alexandria and other places, and sold as slaves. Some of them died as martyrs (44:II, 178).

The German crowd got together at Cologne, at first without

a leader, but later they chose, or rather recognized as their leader, Nicholas, a shepherd boy of only ten or twelve years, who, it seems, had done much to rouse the excitement. This army, like the other, was made up mainly of boys and girls of the shepherd classes, but, as in the other case, there were some old men; and some of the sons of the nobles joined, taking with them their paramours. Many parents were unwilling to let their children go, but could prevent it only by force. Haeser states that many who were shut in closets, tied or otherwise confined at home, actually died of disappointment (44:II, 179 f.).

As they journeyed over the Alps, toward the Adriatic, they suffered many hardships; some had joined their numbers in order to steal from the inexperienced; others, in order that under the cover of piety, they might have opportunity to gratify their baser passions; some died from over-exertion, some, of starvation, and others were frozen to death. Some of them reached Italy; the pope sent cardinals to meet them and turn them back, but only a few heeded his advice. They had to break up into smaller bands, in order to get enough food. Nicholas and a band of seven thousand reached Genoa. They were not allowed to remain there more than a week because it was feared that such a band of non-producers would reduce the town to want if allowed an indefinite stay (44:II, 180). Some of the young crusaders reached Rome; some, probably a very small percentage of those who started out, got back home, but in scattered bands, barefoot, hungry, despised and mocked. The leaders had fallen under suspicion of being insincere, of being deceivers and tricksters. The moral condition was what might be expected under the circumstances; many of the girls scarcely out of childhood themselves, became mothers (44:II, 180). Thus this crusade ended in dismal failure and disgrace. But, Haeser says (II, 180 f.), it shows the power of the excited imagination over the masses, and is a proof that the form of madness or delusion in any age depends on the ideas that dominate the mind.

Two centuries later there was a repetition of the children's pilgrimage, but on a smaller scale (44:II, 186 f.). This time the objective point was St. Michael in Normandy. Like the others, it resulted disastrously; none of the children reached home; those that did not freeze or starve were sold as slaves. This pilgrimage is so much like the others that a detailed study of it will not add materially to our discussion.

The ordinary crusades must be passed with a word. Without doubt they were a means of spreading the plague, and were therefore responsible for whatever results the plague led to,—mental, moral, physical or economic, the last of which is far

greater than is ordinarily supposed. Furthermore, there was a more direct connection between the crusades and the general tone of thought which manifested itself in the great variety of diseases peculiar to the Middle Ages. The religious motive, which led to the attempt to get possession of the tomb of Christ, is probably the most common single factor in bringing about an unbalanced state of mind; on the other hand, it would appear that some of the crusades could not have been undertaken except by those who were already unbalanced; thus the two seem reciprocally causative. Which came first is immaterial for our purpose. Grant that the crusades began under normal conditions,—we must confess that before they were at an end they stirred Europe to the very foundation. Surely it was no ordinary mental atmosphere that caused the women to despoil themselves of their most precious ornaments for the benefit of the crusaders, and the men to dispose of their hereditary domains for a small sum, or else exchange them for arms, in order to take part in the holy wars; surely under normal conditions ingots of gold could not be found in heaps where the wealthy had deposited what they no longer cared for (68:II, 21-23), nor are we prepared to see princes, under ordinary circumstances, resign all claim to their principalities, and even monarchs become indifferent to the glory of reigning over a powerful kingdom, and willing to sell their capital city, if only a purchaser could be found,—yet such was the case with Richard Cœur de Lion (98:III, 257). Such things as these are not to be expected except under an unusual order of things; and on the other hand, they would be expected to disturb greatly the mental equilibrium—if such existed—and thus prepare the soil for such a harvest of mental epidemics as we find in the Middle Ages.

#### V. LYCANTHROPY AND WITCHCRAFT.

Another disease to be mentioned in this connection is lycanthropy—a strictly mental malady. Its name indicates a belief in the ability of men to change themselves into wolves. But wolves were not the only animals into which human beings were supposed to be changed. In Africa the lion, the hyena and the jackal, in Hungary and Poland the vampire played this part (44:II, 170; 97:II, 243). Whatever animal children represented themselves to be in their play, that they believed themselves to be when the delusion came.

The history of lycanthropy is very closely interwoven with the history of magic; magicians did much to stir up and keep alive this belief; in fact, they were thought to be the teachers of those who claimed the power of changing their form. In Germany and France, belief in this power persisted even be-

yond the Middle Ages. It had, probably, been handed down from the days of ancient Greece, for it is known to have obtained among the Greeks in early days (44: II, 170).

In Germany, the victim of the delusion was called a *Wehr-wolf*, in France, a *loup-garou*. *Wehr-wolves* were represented as actually having a wolf-consciousness,—as being fully persuaded that they were wolves, lions, hyenas or foxes, according to the form of the delusion in any particular community. Of course, the only data possible in a case of this kind would be the action of the individual thought to have been transformed into an animal; and, it must be admitted, that often men's actions were not unlike those of a wolf. Some skulked around graveyards, and howled or barked in a way not characteristic of man in his normal condition. Some of the victims of this strange delusion further showed the propensities of wild animals by killing children (68: II, 250 ff.). Any one that went to this extent in his madness was likely to be hunted down and killed as a wild beast. In France, even as late as 1593, a hunt for men-wolves was authorized by law. The parliaments of Bordeaux, Tours, Rheims and other cities decreed that all witches and consultants with witches (by which they meant *loup-garous*), should be put to death. As a result, both at Dole and at Paris, men were brought to trial and condemned to be burned alive (68: II, 200 ff.; cf. 49: 108). Some of those accused, confessed, just as the Jews did during the Black Death.

If a sufficient motive could be found for men doing that for which they are sure to be hunted down as wild beasts or burned at the stake, it would be easy to believe the whole thing an imposture; but the presence of such motive is difficult to find in most cases. In Abyssinia, where this same disease, under the name of zoomorphism, existed in the early part of the nineteenth century, a sufficient motive seems to be discoverable. The potters and the blacksmiths are believed to be able to change themselves into hyenas, and are very much feared on this account; also, the church has excommunicated them because of the suspicion that there is something diabolical about it. As long as they are so regarded, their guilds are not likely to increase in number, and they thus have a monopoly in their line of work. To this end, they strive to keep themselves separate, they wear rings in their ears; and when, as sometimes happens, a hunter kills a hyena that has a similar ring in its ear, the populace has all the proof necessary that a blacksmith or a potter has changed himself into a hyena. It seems never to have occurred to them that these guilds could have caught the animal and, after inserting the ring in its ear, set it free again, in order to keep up the deception (49: 138).

As we have seen, lycanthropy and witchcraft have been closely connected historically; later, we may see that the connection is more fundamental. But in our presentation of the facts the two will be kept separate, according to the usual classification. Witchcraft will be taken in its narrow sense, as demonomania.

Witchcraft has its roots far back in the earliest times of which we have record; in sacred history and profane we have accounts of the same thing under varying forms. The witchcraft of Christian lands was that of polytheistic religions accommodating itself to a new theology. The principles of good and evil gave the Greeks their *eudaimonai* and *kakodaimonai*, the latter having their counterpart in the Roman *manes*; the satyrs, sylvans and fauns, like the Greek centaurs, were but witches considered as belonging to the "college of divinities."

It is not the witchcraft of the Old nor of the New Testament that we shall give attention to but that of modern times. In the first centuries of the Christian era witchcraft was tolerated among the French, Germans, Saxons and others; in fact, the victims were objects of pity even up to the eighth century, when the belief that the devil was present at the witches' meetings arose and aroused the church to hostility (104:II, 1370). There are records of trials of witches in Spain in the ninth century, but the burning of witches in any considerable number is not met with till the thirteenth century. From that time on to the eighteenth century (but mainly in the fifteenth and sixteenth) the number of victims is incredible, being estimated by Mackay (II, 232) as "tens of thousands," and by Rydberg (p. 361) as more than a million. One record says (68:II, 197) that in France in 1520 fires of execution blazed in nearly every town; and many of the cities of both France and Germany annually offered up several hundred each (*op. cit.*, p. 269); during the long parliament in England three hundred were condemned to death (75:290).

We now wonder how a delusion could ever have gained such hold of the popular mind as to make this wholesale destruction of life possible. But when we learn that Augustine, Luther, Melanchthon, Calvin and John Knox were firm believers in witchcraft, and that such men as Sir Thomas Brown appeared as witnesses against witches, we begin to see the extent of the craze. Not only did individuals use their influence against it, but organizations, civil and religious, attacked it. The Emperor Sigismund had the matter "scientifically" investigated in the presence of theologians, and according to Rydberg (90: XVI, 362) they came to the conclusion that it is a "positive and constant fact" that men can assume the form of animals, as in lycanthropy and witchcraft. The parliaments of most

countries recognized witchcraft as a crime, and time and again made laws to punish if not prevent it; in Shakespeare's time, *i. e.*, during the reign of Elizabeth, the burning of witches was sanctioned by the English government (68:II, 149). Pope Innocent VIII issued a bull against witchcraft in 1484, and all the popes from that time till the middle of the eighteenth century endorsed his action. A knowledge of these facts will enable us to see the appropriateness of Justice Story's remarks. He speaks of witchcraft as "a belief that had the universal sanction of their own and all former ages; which counted in its train, philosophers as well as enthusiasts; which was graced by the learning of prelates as well as by the countenance of kings; which law supported by its mandates, and the purest judges felt no compunction in enforcing" (7:61).

The bull referred to above gave absolute power to inquisitors (chief of whom was Jacob Sprenger) to deal with all accused of witchcraft, and no appeal to courts or even to the pope was allowed. Sprenger wrote a book called "*Malleus Malificarum*" (The Witch-Hammer), giving in detail the proper plan to be used in trying witches. According to the rules laid down, trial might commence without any previous accusation. The testimony of the outlawed, the excommunicated and of reprobates who would not be allowed to appear as witnesses in an ordinary case and whose oath would not be believed on any other question, was to be accepted without question against witches. If the counsellor of the accused appeared too earnest in defence of his client he too was to be regarded as guilty of witchcraft. The person accused was put on the rack before the trial so that he might be more inclined to tell the truth. The abolition of the usual mode of trial, and the employment of torture even in the case of one under the slightest suspicion, though not accused, were advocated in the bloody code of Bodinus in France, and also in that drawn up by Henry Boguet, "The Grand Judge of Witches for the Territory of St. Claude," as he called himself. What Sprenger was to Germany, and what Bodinus and Boguet were to France, Matthew Hopkins was to England.

The offer of a reward of twenty shillings for every witch convicted gave rise to a class of professional witch finders; and the methods employed by these, and sanctioned by the courts, made the great number of executions possible.

The method of trial is one thing that makes witchcraft an interesting study from the psychological point of view. It will therefore be well to recall a few facts concerning that question.

As has been said, an inquisitor could force one to trial without accusation and without warning; he could put to torture any one he chose, in order to extort a confession. If torture

failed to call forth a confession, and if witnesses were lacking, other methods were resorted to. In England, particularly, the accused was commanded to recite the Lord's prayer; if she failed to do so readily and accurately, she was adjudged guilty (68:II, 24). In some districts the one suspected was weighed against the Bible, and considered guilty if found to be lighter than it; this method seems not to have been employed extensively, for too many escaped punishment by weighing too much. Others employed the pricking test; the one on trial was pricked with pins all over the body, and if any spot insensible to pain was found, it was sufficient proof that the person was a witch. Hopkins himself preferred the swimming test recommended by King James in his "Demonologie." This required that the accused be wrapped in a sheet (after each thumb had been tied to the toe of the foot opposite) and laid on the back in a pond or river. "If they sank," says Mckay (II, 241), "their friends and relatives had the poor consolation of knowing they were innocent, but there was an end of them; if they floated—there was also an end, for they were deemed guilty of witchcraft, and burned<sup>1</sup> accordingly." The "Witchfinder-General," as Hopkins was called, had even a more atrocious test than this. The suspected witch was made to sit in some uneasy posture in the middle of a room for twenty-four hours, without food or drink. Guards were always present to see if Satan or any of his imps came to the witch, in the form of a fly or a moth or a bee. If any insect which entered the room succeeded in escaping before the guards could kill it, it was an imp, and the one on trial was pronounced guilty, and accordingly executed (68:II, 243). Other tests quite as ridiculous were in vogue, but illustrations need not be multiplied.

It seems that judges, parliaments, and courts, civil and ecclesiastical,<sup>2</sup> never realized the absurdity of their position. They accepted the testimony of witnesses who said they saw certain persons in the form of birds, cats or other animals; and they never thought to ask how these witnesses could be sure of the identity of a person in the form of a cat or a bird. The denial of one accused was disregarded; one might be honest but deluded, might be changed to an animal without knowing it, the judges held. The testimony of a husband that his wife was at home at the time she was charged with being at the witches' dance, counted for naught; he was told that he no doubt thought his wife was at home, but the devil had deceived

<sup>1</sup> Regnard (pp. 37-8) says that besides burning and drowning, other methods of putting to death were employed—such as burying alive, strangling, dragging behind a cart, face down, and boiling to death.

<sup>2</sup> It will be remembered that the theological faculty of Paris condemned Joan of Arc to be burned as a witch.



him by substituting another or an imp in the form of his wife while she was away. This inconsistency in the way of regarding the testimony of witnesses for, and that of those against, the accused, was apparently overlooked by those engaged in the trial. And yet, as Leckey says (7:55), "the subject was examined in tens of thousands of cases, in almost every country of Europe, by tribunals which included the acutest lawyers and ecclesiastics of the age."

The state of mind that made the acceptance of such evidence possible is not without interest, but the mental condition of witches themselves is of more concern to us. Of course, under the system of trials in vogue,—a system which made it possible for inquisitors to satisfy their private revenge, to gratify their cupidity or to put out of the way those whom they feared—thousands of innocent, sane and rational persons lost their lives; and this number was greatly augmented by the confessions which many of those accused made, for confessions tended to strengthen the delusion in the popular mind. These confessions themselves demand explanation,—they cannot be accounted for as deliberate lies told to escape punishment, for they always led to death. We must not forget, either, that there were witches' meetings, and these, as we shall see, gave some ground for the belief which prevailed. To quote Tamburini and Tonnini (104:II, 1369), "The grossest crimes and most barbarous cruelties were practiced at their orgies,—infants were sacrificed and their flesh, after having been boiled with toads, serpents and the like, was made into an ointment which was reputed to possess bewitching qualities. At the end of their ceremonies, great banquets were eaten at which infant's flesh was a prominent dish." Such meetings are known to have been held in Switzerland as late as the middle of the fifteenth century. This form of witchcraft is known as demonolatry, which is really devil-worship. The mental condition of witches, and especially of those who engaged in these practices, needs to be considered. It is safe to say that this condition varied all the way from simple mental depression with visions and hallucinations to the strange insanity of those who participated in these orgies or of those who hid in the woods or lurked in graveyards, killing and actually devouring people. According to Tamburini and Tonnini (104:II, 1370), an epidemic of some such character occurred in England just before, and again just after, the Black Death.

A question which has been practically neglected in the discussion of witchcraft, has quite a direct bearing on the magnitude of the delusion, and also on the poisoning mania during the plague, if not on several other epidemics of the Middle Ages. There were no asylums for the insane before the seven-

teenth century, so those of unsound mind were left at large (108:122 f.). There is little doubt, therefore, that they communicated their insanity to others. And no doubt this accounts, in a large measure, for the number who confessed the impossible things of which they were accused.

Turning now to the relation of lycanthropy to witchcraft, we may say that, strictly speaking, lycanthropy is a form of witchcraft; *i. e.*, witchcraft, in its broadest sense, is generic, and includes not only demonomania (witchcraft as generally understood), but theomania, lycanthropy and certain hysterical phenomena. The same general psycho-pathological condition is present in all of them. The description of melancholia given by Tamburini (104:II, 1368) will apply to the condition of the victims of witchcraft or lycanthropy. Melancholia with delusions and confused personality is clearly seen in the case of those in witchcraft who believed themselves changed into cats, birds, etc., and in the case of those in lycanthropy who believed themselves to be changed into wolves, hyenas, vampires, etc. The distinction between ordinary witchcraft and lycanthropy seems to be superficial rather than essential; in witchcraft, emphasis is not placed on the assumption of animal forms so much as on the diabolical power of the one possessed, while in lycanthropy, the change of form is the feature made prominent, although the same power is necessarily considered present.

Belief in witchcraft has not altogether died out even yet; it is probably more general in the highlands of Scotland than anywhere else. But there are no more executions; in fact, those at Salem in 1692 were among the latest so far as I have seen; the French parliament, even a century earlier, influenced, no doubt, by the attitude of Louis XIV, had refused to condemn those accused; but trials continued in some places even in the first quarter of the nineteenth century (68:II, 320). The delusion was so deep-rooted that with another King James and another Innocent VIII, we might find it assuming alarming proportions even now.

This remarkable delusion suggests another which, although it captivated millions of minds during its reign of a thousand years, must receive but a brief notice here. I refer to alchemy. Most noticeable among those who were entangled in its web, may be mentioned Avicenna, Albertus Magnus, Thomas Aquinas, Roger Bacon and Paracelsus. Though the philosopher's stone<sup>1</sup> was never discovered, though the secret of transmuting

<sup>1</sup> It is interesting to notice that such men as Prof. Rutherford have concluded, from their study of radio-active substances, that the alchemists were correct in believing that substances are transmutable. So the alchemists became chemists, and chemists have become alchemists.

the baser metals into gold was never found out, it was a partial compensation for all the baleful influences of so powerful a superstition, for the tremendous waste of energy, time and talent, that alchemy gave us chemistry as astrology gave us astronomy.

## VI. COMMERCIAL CRAZES.

*The Mississippi Scheme.* The Mississippi company was organized in France, by John Law, a Scotchman, in 1717. Its purpose was to have "the exclusive right of trading to the great river Mississippi." It was a typical get-rich-quick scheme, but was on a tremendous scale, and its effects were so vast and far-reaching as to be almost beyond the possibility of belief.

To show the condition of things when the infatuation was at its height, I quote from Mackay (I, 26): "The highest and the lowest classes alike were filled with the visions of boundless wealth. There was not a person of note among the aristocracy, with the exception of the Duke of St. Simon and Marshall Villars, who was not engaged in buying and selling stock. People of every age and condition in life speculated in the rise and fall of the Mississippi bonds. The Rue de Quincampoix was the grand resort of the jobbers. . . . Houses in it, worth, in ordinary times, a thousand livres of yearly rent, yielded as much as twelve or sixteen thousand. A cobbler who had a stall in it gained about two hundred livres a day by letting it out and furnishing writing material to brokers and their clients. The story goes that a hunch-backed man who stood in the street gained considerable sums by lending his hump as a writing-desk to the eager speculators. The great concourse of persons who assembled to do business brought a still greater concourse of speculators. These again drew all the thieves and immoral characters of Paris to the spot, and constant riots and disturbances took place. At nightfall, it was often found necessary to send a troop of soldiers to clear the spot."

When fifty thousand new shares were offered, there were at least three hundred thousand applications made for them; and for weeks the eager applicants beset Law's house. Dukes, marquises and counts, with their duchesses, marchionesses and countesses, waited in the street for hours every day to know the result. Many took apartments in adjoining houses, "that they might be near where the new Plutus was diffusing his wealth" (68:I, 25). The streets were so blocked by the waiting crowds, Law moved his office to a place that had open space enough to accommodate the crowds, and, in order to keep the streets clear a law was passed confining speculation to this place (68:I, 28). Law became the most important

personage in the realm; the ante-chamber of the regent of France was deserted by the courtiers; scholars, bishops and peers who would have considered it an insult if the regent had made them wait half an hour for an interview, thought nothing of waiting five or six hours to get to see Monsieur Law. Every conceivable scheme was devised for gaining access to him; enormous fees were paid servants by some persons merely to have their names announced. One fine lady had the coachman drive so as to overturn her carriage as she was about to meet Law, hoping that his gallantry would cause him to come to her assistance; another gave the alarm of fire in order to get to speak to him as he ran out (68 : I, 32). To use Mackay's language (I, 44), "Never was monarch more flattered than he was. All the small poets and *litterateurs* of the day poured floods of adulation upon him. According to them, he was the Saviour of the country, the tutelary divinity of France; wit was in his words, goodness in all his looks, and wisdom in all his actions. So great a crowd followed his carriage when he went abroad, that the regent sent him a troop of horse as his permanent escort to clear the streets before him."

But this state of things could not last always. Prices could not continue to rise forever. Some recovered their senses enough to think of this, then the hitherto unbounded confidence began to waver; the tide was turned; fortunes were lost by the rapid decline in stocks. Law's sincerity was questioned; he became the most cordially hated man in the kingdom,—every epithet that popular hatred could suggest was hurled at him. An attempt was made to mob him; the carriage in which he was thought to be was set upon and demolished. The royal carriage and an armed escort were put at his disposal,—for the regent had not lost confidence in him, but Law soon concluded that his safety could be assured only by flight. His property was confiscated, even contrary to a special edict that should have prevented it.

History has furnished few better examples of frenzy so well-nigh universal and of so long duration, and also of the extreme fickleness of crowds.

While this mental epidemic, this terrible delusion was raging in Paris, the plague, in its severest form, was raging in Marseilles. It is difficult to say which city was really most seriously disturbed.

*The South-Sea Bubble.* While France was wild over the Mississippi Scheme, England was suffering a similar delusion, usually known as the South-Sea Bubble. It promised fabulous fortunes to those who would take stock in the company organized to trade with the South-Sea countries,—certain South American states, and various islands. It is scarcely too much

to say that for the greater part of a year almost all England lost its senses,—the wildest fanaticism reigned. Even Parliament had no judgment on financial questions; the encouragement it gave the South-Sea Company did much to augment the evil. The stock soon began to rise; it went to two hundred, three hundred, four hundred, five hundred, and, finally, to one thousand per cent. Mackay says (I, 83), "Exchange Alley [the Wall Street of London] was every day blocked by crowds, and Cornhill was impassable for carriages. Everybody came to purchase stock. 'Every fool aspired to be a knave.'"

The mental contagion was so powerful that the people became an easy prey to cheats, frauds and swindlers of all kinds. Dozens of other schemes of the most extravagant kind were started. Some do not believe it possible to organize a company "to make deal boards out of sawdust," yet Maitland, in his "History of London," says (68: I, 87) that such a company not only existed, but received great encouragement. There was another "for the transmutation of quicksilver into a malleable fine metal," and one for extracting silver from lead. A company, capitalized at a million dollars, to construct a wheel to be run by perpetual motion, was not the only proof of the almost universal insanity. There was a company to make square cannon balls. Permits to join a company which would be organized "sometime," for the manufacture of a new kind of sail-cloth, were sold at sixty guineas each,—the stock had to be paid for in addition to this. There was another, entitled "A company for carrying on an undertaking of great advantage, but nobody to know what it is." Mackay (I, 88) says he is following scores of credible witnesses when he states that even so palpable a swindle as this found dupes. Within five hours after the swindler opened his office for the sale of stock, a thousand shares of one hundred pounds each had been subscribed for, and partly paid; the rascal, finding himself in possession of two thousand pounds for so little outlay, left immediately for the continent, and was never heard of again.

After about eight months the South-Sea Bubble burst, because the unnatural state of mind could not last always. Prices fell rapidly; fortunes were lost in a day; many who were wealthy in the morning, were paupers at night. And as intimated elsewhere, the bitterest feeling was aroused. Parliament, which had given encouragement to the scheme before, now confiscated the property of the organizers of the company.

*The Tulip Mania.* It was not so strange to see the mercurial French run wild after a chimera, as to see the cold-blooded Anglo-Saxons, and especially so prudent a people as the Dutch. Yet Holland went mad over the tulip about a cen-

tury before France and England had their crazes,—or more exactly, in 1634. At this date "the ordinary industry of the country was neglected, and the population, even to the lowest dregs, embarked in the tulip trade" (68:I, 141). The mania had reached such a stage in 1635 that tulips, like precious stones, were sold by weight; the standard was the *perit*, less than one grain. Many paid as much as 100,000 florins for forty bulbs. Some invested their entire fortune in the purchase of one bulb. If a man had no money, he gave what he had. One person offered twelve acres of building ground for a single root of a fine variety, the Haarlem; another gave in exchange for an Amsterdam, "4,600 florins, a carriage, two gray horses and a complete set of harness" (68:I, 142).

In view of all this, we are not surprised that a sailor who ate a tulip, believing it to be an onion, was put in prison for several months. The value set upon that particular bulb was \$1,400—enough to provision a ship's crew for a whole year.

Mackay says (I, 147): "Nobles, citizens, farmers, mechanics, seamen, footmen, maid-servants, even chimney sweeps and old clothes-women, dabbled in tulips." Those who had property sold it at ruinous prices in order to become speculators.

It should be said that it was love of the flowers that led to high prices; speculation followed naturally; and when it began, foreigners caught the craze, and poured into Holland from all directions. The bulbs were publicly sold in the Stock Exchange in London, in 1636, and several years later one tulip brought seventy-five pounds.

In Holland it became necessary to enact a special code of laws for the guidance of dealers in tulips. They had their tulip-notaries and tulip-clerks who devoted all their time to tulip trade. The fever was at its height for about two years, when the people regained their senses, and found their country practically bankrupt (68:I, 147).

## VII. LATER RELIGIOUS EPIDEMICS.

Interesting phenomena are to be found among religious sects even as far back as the beginning of the second century of the Christian era. The Adamites, who prayed nude, the Ophites, who worshipped the serpent, the Gnostics, with their loathsome religious rites, the Montanists, who always carried lamps and who had visions in which they saw the soul, "soft, delicate and shining," the Simmachians, who practiced self-mutilation, and the Massabiani, who, besides showing other peculiarities, always carried sacks on their backs, breaking forth into wild leaps, all possess very great interest from our point of view, but because of the limited scope of our undertaking it is considered best to concentrate on certain religious

epidemics of modern times. Beginning with certain sects which arose in the seventeenth century, we shall give a brief sketch of these in order to obtain facts for a comparative study, and then take up more fully some remarkable examples of a later date.

George Fox, the founder of the Quakers, claimed to have the power of prophecy and clairvoyance, and also of miraculous healing. His mental history shows striking resemblances to that of Mohammed. He spent much time in solitude, and fasted much. Once he fell into a trance which lasted fourteen days (69:938). But it is the peculiarity of the sect which he founded to which attention is now to be given. The name given to the sect indicates this peculiarity; the "quaking" or trembling which overcame them while engaged in worship was sometimes so violent that even the house in which they sat seemed to be shaken (*cf.* Art. "Quakers," in *Encyclopedia Britannica*).

The Ranters and Fifth-monarchy men who arose about the same time, *i. e.*, about the middle of the seventeenth century, were not affected so much by these convulsions, but were even worse in their wild fanaticism or mental aberration. In 1657 the Fifth-monarchy men formed a plot to kill Cromwell; and later they broke out in insurrection, claiming to have Jesus as their leader. Troops were called out against them and most of them were slain,—they would not yield because they considered themselves invincible (69:93).

At the end of the seventeenth century the Cevennes, or French phophets, another sect of convulsionists arose, and being driven from their own country, spread the disease in Germany, Holland and England; in the latter country it came to the attention of Charles Wesley, who considered the contortions of the body to which the victims were subject, as the work of Satan. Evidently Wesley did not suspect that later his brother's preaching would produce similar results, yet it is among his followers that some of the best examples are to be found. Indeed, Wesley's biographer seems to consider it an honor to Wesley that he could compare so favorably with Whitefield in this respect (69:940). And Wesley, so far from seeing anything diabolical in it, "acknowledged the finger of God." It is interesting to learn from his description, that even sceptics might be attacked while watching those affected (69:940 f.).

The Jumpers, who arose in Wales about 1740, are described by Wesley as presenting the same phenomena that we have found among his own followers. According to him, "they would sing the same song over and over again, thirty or forty times, till some of them worked themselves into a sort of

drunkenness or madness; then they were violently agitated and leaped up and down in all manner of postures frequently for hours together" (69 : 940).

Just about a century after the founding of the Quakers, by Fox, another similar sect arose of which the ruling spirit was "Mother" Anne Lee, whom her followers believed to be the reincarnation of Christ. She and her followers claimed the gift of prophecy, the gift of healing, and sometimes the gift of tongues. Their name also was given them because of the violent shaking which usually came upon them during their worship. Dancing was considered a part of worship, according to their own historians (69 : 941-2). After their removal to New York, near the close of the eighteenth century, many grave charges were made against them, and some of these are admitted by the Shakers themselves. Thomas Brown, who was for a time a member of the Shaker society, and who has given us an excellent history of that sect, says (p. 322) that it was their custom to shut themselves in from the world, and dance absolutely naked, men and women together; yet strange to say, he denies the rumors that the grossest immorality was practiced on these occasions.—he even says that one young woman was stripped naked and publicly whipped for manifesting improper desires. In the face of all this one is naturally curious to know what this historian is keeping back in regard to the practices of these people, for he says there are some things which modesty forbids him to speak of.

About the time the Shakers arose in England the Convulsionnaires arose in France. The grave of a greatly beloved man had been visited for years. Finally it was reported that miracles had taken place at his grave; the excitement caused was so great that some were seized with "convulsions and tetanic spasms." This caused multitudes to go to the cemetery daily to witness the strange spectacle. The excitement assumed such proportions that Louis XV issued an order that the cemetery should be closed,—but laws are powerless under such circumstances. The number of victims increased to such an extent that soon there were almost a thousand Convulsionnaires.

Many of the patients, in addition to suffering from convulsions, were attacked by violent pains, which were relieved by their friends (called *secourists*), by very rough treatment, as were the dancers of the Middle ages. According to Hecker (p. 148), "the sufferers were beaten and goaded in various parts of the body with stones, hammers, clubs, swords, etc., of which treatment the defenders of this extraordinary sect relate the most astounding examples, in proof that severe pain is imperatively demanded by nature, in this disorder, as a counter-irritant.—It is stated that some Convulsionnaires have borne



from six to eight thousand blows, . . . without danger." This author says further (*loc. cit.*), that "sometimes the patients bounded from the ground impelled by the convulsions, like a fish when out of water; hence it is not strange that women and girls, not wishing to appear indecent, put on gowns made like sacks, closed at the feet. . . . They showed great agility,<sup>1</sup> . . . and it is scarcely necessary to remark that the female sex especially, was distinguished by all kinds of leaping, and almost inconceivable contortions of the body. Some spun round on their feet with incredible rapidity, as is related of the dervishes; others ran their heads against walls, or curved their bodies like rope-dancers, so that their heels touched their shoulders."

This mania of the Convulsionnaires continued to rage for about sixty years, or until the upheavals of the French Revolution struck it a blow that weakened its force, and gradually brought it to an end. The moral condition of the community during this time is hard for us to realize. "The grossest immorality," says Hecker (p. 149), "found in the secret meetings of the believers, a sure sanctuary, and in their bewildering devotional exercises, a convenient cloak." Secret meetings are spoken of in this quotation;—in the year 1762, parliament passed a law against the "Grands Secours," or their harsh method of treatment, and this, to them, was virtually a law against their religion; or at least, a law against public meetings, for they felt that they must "cure" the suffering even if they had to have secret meetings for that purpose; and so from this time on they met in secret. Whether these extravagances continued or not after the Revolution, I have been unable to ascertain; the sect was still in existence at the end of the first quarter of the nineteenth century, but without the convulsions (49:150).

We may say that religious mania was not only epidemic, but pandemic, during the eighteenth century, for it spread throughout America as well as Europe. And as America furnishes some of the latest and best material, all further information may be drawn from our own country.

Although the epidemic was not confined to any particular section, the best example is the one known as the Kentucky Revival, which, about the end of the century, swept over sev-

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<sup>1</sup>There was a disease in Scotland at about this date, possessing the physical peculiarities of the religious manias, in a somewhat different and exaggerated form. They had fits of dancing, during which they had all the appearance of madness; often they ran with wonderful speed, even over very dangerous ground; sometimes when confined in the house they would climb in a most singular manner, leaping from one cross-beam to another with the agility of a cat, or whirling around one "with a motion resembling the fly of a jack."—*Cf. Edinburgh Med. and Surg. Jour.*, Vol. III, p. 434.

eral states, but centred in Kentucky. Here everything else dwindled into insignificance, and for four or five years all minds were concentrated on religion. During this time camp-meetings were in almost continuous progress, and people came in wagons forty or fifty miles, bringing provisions enough to last while the meetings continued. To borrow the language of Dr. Davidson, who has written a history of this revival, "the laborer quitted his task, age snatched his crutch, youth forgot his pastime, the plough was left in the furrow, business of all kinds was suspended, bold hunters and sober matrons, young men, maidens and little children flocked to the common centre of attraction." The usual estimate of the number of people present at Cane Ridge, where the greatest excitement prevailed, is twenty thousand (63:26), though some have thought that this number should be doubled.

A crowd of this kind, oppressed by a "pungent sense of sin," when gathered together for the purpose of worship, would, even with less emotional and impassioned preaching, develop no small degree of excitement,—and this was redoubled under the conditions usually present in these meetings. One must remember that the meetings, which had continued probably the greater part of the day, were prolonged till late at night—indeed, usually even until morning, during all of which time songs were sung, fervent prayers were offered, and perverted preachers pictured the glories of heaven, or the horrors of hell, in words that burned. The glaring light of camp-fires revealing long ranges of tents through the darkness, the light of flashing torches and flickering candles falling upon the dense mass of people and showing thousands of heads bowed in prayer, and the groans, the sobs and the shrieks of those suffering intense anguish of mind, all conspired to make the scene more weird, "to invest it with terrific interest," and thus produce that delirium of excitement the like of which has never been seen. One other factor contributing to this end was the fact that women and children, as well as men, preached; the preaching of one little girl of seven and a boy of twelve were said to be especially effective (113:499 f.).

The physical effects that followed on these occasions were most remarkable. A great number were seized with an impulse to leap or jump, from which fact the people connected with the revival are generally known in Europe as the "Jumpers," although that was one of the least interesting of the physical characteristics. Some became cataleptic and remained in that condition from a few minutes to several days (113:502). Many were affected with the "jerks," a spasmodic contraction of the muscles which sometimes caused the head to turn from side to side with such rapidity that the features were indistin-

guishable (113:503); sometimes the whole body was affected and the head was jerked backward and forward so violently that the head almost touched the floor behind and before (113:503), and the reversal of the motion was so sudden that the hair, if it was long, would "crack and snap like a whip lash" (113:503).<sup>1</sup> According to Barton W. Stone, one of the most prominent religious leaders of his day, it was not alone the weak in body and mind that were subject to these violent convulsions—but "all classes,<sup>2</sup> saints and sinners, the strong as well as the weak" (113:503), and in the same connection he says he has seen some thrown to the earth by the violence of their convulsions while they were cursing the jerks. But while it is true that all classes and all ages, from the child of six or less<sup>3</sup> to the man of sixty were subject to these convulsions (85:5 f.), it is also true that women and children were more commonly affected, and according to Dr. Felix Robertson (p. 5), particularly those from fifteen to twenty-five.

Richard M'Nemar, who was one of the preachers in the revival, and who, as an apologist, would certainly not exaggerate, says (p. 61) that some, stretched at full length, rolled on the ground like a log for hours at a time, others, drawn double, with head and feet together, rolled round and round like a wheel, and still others were dashed to the ground and "bounced from place to place like a football." Evidently it is this last phenomenon which Hecker (p. 148) and McMaster (p. 58) describe in a more fitting figure when they compare the motions of the sufferer to those of a live fish out of water. Others, according to Mooney's report (p. 963), hopped about like frogs.

After the convulsions began in violent form, the sufferer was absolutely powerless,—he was as a leaf in a whirlwind;<sup>4</sup> but

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<sup>1</sup> Dr. Davidson would not record cases of this kind until he got information from eye-witnesses. Dr. Yandell followed his example. I can introduce the same kind of testimony, for my grandmother witnessed these peculiar phenomena among the jerkers in Tennessee.

<sup>2</sup> Lorenzo Dow, one of the revivalists, in describing his meetings at and near Knoxville, Tennessee, says: "I have seen Methodists, Baptists, Quakers, Church of England, and Independents exercised with the jerks—gentlemen and ladies, black and white, rich and poor without exception. Those philosophers who wish to get it to philosophize upon it and the most godly are excepted from the jerks. The wicked are more afraid of it than the small-pox or yellow fever." The Presbyterians might have been added to the list of denominations he gave, for it was among them that the Kentucky Revival began.

<sup>3</sup> Jonathan Edwards (2: 158) tells of a child of four being so affected in one of his meetings; in fact, Edwards gave special attention to children and was anxious to get as many as possible under this influence (*loc. cit.*).

<sup>4</sup> It was impossible to quiet one who had the convulsions; all efforts in that direction usually made one worse; and besides, one man could scarcely be restrained by five or six, so great was his strength when in this condition (49:144).

when they came in the form of the jerks, which, in the earlier stages, were mere twitchings of the limbs and muscles that move the head, the sufferer might protect himself, in a measure, by holding to some stationary object. In some places, when clearing the ground to make an opening to accommodate the crowds, saplings were cut off breast-high and left "for the people to jerk by." McMaster (p. 581) refers to one place where there was quite a grove of these stumps around which the earth was kicked up "as by a horse stamping flies."

Many fell suddenly to the earth as in an epileptic fit; this was called "the falling exercise." One person's falling seemed to be the signal for others; in other words, it was very contagious. Where these vast crowds were assembled, the number of those affected ran into the hundreds; indeed, M'Nemar reports (p. 26) that on one occasion three thousand fell; this statement is made on the basis of an actual attempt to count the "spiritually slain," as those who fell were called. These were taken away, to prevent their being trampled upon by the jumpers, and laid in rows in the meeting-house, which was reserved for this purpose—the preaching being in the open air. Some of these persons were unable to move for quite a while; some could merely kick the floor with their heels; some were soon up and among the jumpers, the jerkers or the rollers, or perhaps rushing wildly about in the forest (62:581).

There was another class known as the "barkers,"<sup>1</sup> according to Brown (p. 343) and M'Nemar (p. 62) both of whom were on the ground, people would get down on all-fours and bark and growl like dogs.<sup>2</sup> Mooney (p. 943) adds that they would get down in front of the preacher, and bark as long as he preached. At first those who had the barks felt very much humiliated at being compelled to do a thing that seemed so degrading, but later they were regarded as possessing a larger measure of the Holy Spirit (69:943); probably it was then

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<sup>1</sup> Barking manias have broken out from time to time since the fifth century, but they are not necessarily connected with religion. Sometimes the imitation is of a cat, a sheep, or a dove, instead of a dog. See Dict. Psych. Med., Vol. I, p. 436; Havelock Ellis, "Man and Woman" (Ed. 1904), p. 353; Calmeil, *De la folie*, t. I, p. 513.

<sup>2</sup> This performance has been closely paralleled in recent years by some of the Russian sects. Besides manifesting the more common physical phenomena, including the dance, the whirling of the der-vishes, and convulsions, "men and women tear off their garments and go about on all-fours, ride on one another's backs, and give way to the sexual erethism which had been exalted to the highest point" (Ellis, 333-4), yet they call themselves Christs, and actually claim to possess a portion of divinity, and to be worthy of adoration; it is admitted that they are ascetic under normal conditions, but are carried beyond themselves by an excitement which they believe is of divine origin.

that the disease became more persistent, for we are told that some continued their barking "from month to month" (63:62). It scarcely need be mentioned that all who participated in these meetings believed all these phenomena to be the manifestation of the Holy Spirit which had taken possession of the man, soul and body. It is interesting to note that in the Middle Ages, phenomena similar to these were attributed to the devil, and the "possessed" were exorcised by the priests. It is interesting, furthermore, to notice that the faith of those who believed in the divine influence was never shaken by the fact that cold water dashed on a sufferer might cure him.<sup>1</sup>

The barkers finally learned that dancing would give relief,—that it would as it were, drain off the surplus nervous excitement, and they preferred voluntary dancing to involuntary barking, according to M'Nemar (pp. 62-3). One of the ministers, so the same author says, set the example, and soon the dance came to be regarded as a part of the worship (63 : 60).

The "holy laugh" was another peculiar feature of this revival. Sometimes while the sermon was in progress half the congregation would be laughing aloud in the most serious way—if it be not a contradiction to say so—for they regarded it as a part of the worship (113 : 505).

One would naturally expect many serious injuries if not a few fatalities, from the violent actions of those so powerfully affected, but singularly enough, we find no record of such; on the contrary we are told (18 : 346-7; 69 : 942) that very few hurts were received, and those were not at all dangerous. Evidently those most under the influence of the excitement were largely if not wholly anæsthetic. This was confirmed by accident in one case. A physician administered hartshorn to a young man who had fallen, in order to revive him, and spilled some in his nose, but he took no notice of it (113:502).

There is reason to believe that all the after-effects have not been recorded by the historians of the revival; and this is not strange, for being themselves participants, they might naturally, as apologists, keep silent on the most objectionable features, or at least fail to attribute them to their true cause. In view of the results of such excitement in other places one is surprised not to find record of more cases of permanent insanity. If the New England Revival<sup>2</sup> which did not by any

<sup>1</sup>A minister in the Shetland Islands having his sermons frequently interrupted by several members who were subject to these convulsive attacks, announced to his congregation that immersion in cold water was the most effectual remedy known for that trouble, and that in future those who were attacked would be taken to a near-by lake. It need scarcely be said that he never had occasion to use the remedy.

<sup>2</sup>The New England Revival started in 1734 under the preaching of Jonathan Edwards; but the extravagances of this were far surpassed by the Great Awakening which occurred five years later. This was

means assume the proportions of the Kentucky Revival, resulted in a mania for suicide (62a:II, 159) it would be expected that mental aberration would not be absent from the latter. It is probable, also, that the health of many was permanently injured; in fact we are told (49:152) that many retained for life some nervous disorder which resulted from the excessive excitement. Interesting cases in a different section of the country will be given in another connection.

While the Kentucky Revival proper ended about 1805 (having begun, as usually reckoned, in 1800), that variety of religious excitement has continued even down to the present. A wave which would have been considered remarkable but for being overshadowed by that which we have described, overran Ohio, New York and some of the New England states about the middle of the last century; but since that time it has constantly decreased as an epidemic, and grown milder in form. I have studied the question at first-hand in some of the Southern states which were so much affected by the Kentucky Revival, and I find that jumping, or shouting as it is now usually called, is practically the only "bodily affection" in recent years, and even this is not common. Other sections of the country now have severer forms than I have met with even among the negroes of the South within the last decade. The Holy Rollers were to be seen in Worcester, Mass., only two or three years ago; the Holy Jumpers are found in several of the Western states to-day. The Shakers in Maine, Prince Edward Island, and perhaps in other places, still present the same peculiarities, and consider dancing a part of the divine service.

Since the great revival, and particularly in the last quarter of a century, a number of sects have sprung up which make even more extravagant claims than those a century ago. Like these, they claim to see visions and to speak with tongues; many of them claim to work miracles, and some claim to be Christ incarnate. The Millerites, founded in 1831, and now numbering about twenty thousand, still hold together, notwithstanding their disappointment at Christ's failure to return to earth in 1843, as they expected. The Beekmanites, founded in Illinois in 1875, by Mrs. Beekman, and now presided over by her successor, Schweinfurth, both of whom have claimed to be Christ, still gain new members. In 1888, a man by the

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the time of the excitement aroused in England by the Wesleys and Whitefield; in fact, they made a visit to America during this revival, and Whitefield took quite an active part in it. All such convulsive religious epidemics are regarded by Wicke, Hecker and Haeser (44:II, 179) as forms of the dancing mania. Fort (p. 363, 5) agrees with these writers as to the outward resemblance of the religious to the dancing epidemic, but he differs as to the cause.

name of Brown, near Chattanooga, Tennessee, claimed to be the risen Christ, and was actually worshipped as such. Some of his followers offering to die to prove their faith, the sheriff stepped in and drove Brown from the neighborhood. A year later, a similar craze arose among the negroes of Georgia and South Carolina. A number of negroes claimed to be Christ, and a sect known as the "Wilderness Worshipers" was formed, and a temple and an ark were built. When their enthusiasm led to the killing of a woman, the leaders were adjudged insane and sent to the asylum; many others were put under arrest and held in custody till the excitement died out. At the same time, Indiana, Illinois and Missouri were visited by the "Heavenly Recruits," who showed the same extravagance of mental and physical phenomena, till the civil authorities "put a stop to the mental and physical demoralization (69: 944 ff.). "Zion" and "Shiloh" being just now at their height, need but to be mentioned. The Doukhobors, one of the most interesting of modern sects, persecuted by the Russian government, defended by Tolstoy, and, finally, allowed to seek refuge in Canada, must also be omitted here.

Such striking parallels are found among the Indians that it will be well to mention one or two of them before leaving this subject. The Indians of Puget Sound have a sect of Shakers; it was founded in 1882 by an Indian, John Slocum, who mistook his delirious dreams in a spell of sickness for a heavenly vision; who, in short, believed he had been to the gates of heaven, and had talked with Christ face to face. Having, as they believe, a direct revelation, they do not care for the Bible. While their worship is characterized by some extravagances, especially by dancing, their life is above reproach. They make special war on drunkenness, gambling and such vices, they preach honesty, sobriety, temperance and right living, and they practice what they preach (69: 759).

The Ghost Dancers originated about 1890, through the work of Wovoka, another Indian who saw "visions," and was transported to heaven during delirium, caused by fever. Though generally known as the "Messiah," and usually believed to have assumed that title himself, he repudiates all claims to divinity, but he does claim to be in constant communication with God, and maintains that he has been given power over the elements; he actually opened negotiations with the powers at Washington "to keep the people of Nevada informed of all the latest news from heaven, and to furnish rain whenever wanted, for a small consideration paid at regular intervals" (69: 773).

Their ceremony consists in forming a circle, joining hands, and marching around the leader, singing songs of suitable

rhythm; this is kept up till some become entranced, or as they express it, "go to the spirit world." Most who go into trance become cataleptic, and are usually allowed to fall heavily to the ground. They may remain in this rigid and unconscious condition for a few minutes only, or for hours. In many instances, the entranced person will spin around like a whirling dervish, or maintain some difficult posture for a length of time that would be impossible for one in the normal condition (69:925 ff.). Mr. Mooney, of the department of Ethnology at Washington, saw a young Arapaho become rigid in trance night after night. According to him (p. 924), this young man took part in the terrible sun dance later, "dancing three days and nights without food, drink or sleep."

The belief that the Messiah was going to restore the old order of things and make all Indians invulnerable caused the dance which he instituted to be generally engaged in, and the excitement to which it led to become more wide-spread. It was this excitement added to hunger that brought to a focus the disturbance that led to the tragic death of Sitting Bull (69:845 ff.). This failure of their prophecies to come true shook their faith and caused the Ghost Dance almost to cease for a time in certain tribes.

There is a peculiar religious disease variously known (according to its form and also to the place where it is found) as *lata*, *lattah*, *ikota* and *klikuschi*. In America and South Africa it is found without the religious aspect. In this country the people who are affected with it are called the "Maine Jumpers" or "Jumping Frenchmen." According to Dr. Beard, who made a personal study of them (10:170-92), they are, as a rule, mere automata, obeying every command and imitating every action, regardless of danger to themselves or others.<sup>1</sup> Consequently they suffer much at the hands of thoughtless or cruel persons. Some of them who are hotel waiters have, when commanded, dropped dishes, or thrown glasses across the room; others have been made to strike their fists through glass doors, and even jump off high embankments. Similar tricks are played on the Javanese, who suffer from *lata*. According to Mr. Havelock Ellis (p. 336) if one throws off his coat in the presence of a woman who is affected with this disease, she will immediately undress or do any other indecent act that she sees any one else do, yet, at the same time, she may be very indignant, and may all the while abuse the one who causes her to do such things. According to this same writer, a man who was subject to *lata* was playing with his child,

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<sup>1</sup> For much personal information concerning the Jumping Frenchmen, I am indebted to Mr. H. L. Brittain who lived among them in Canada.



when a bystander taking up a piece of wood began throwing it up and catching it; the father did the same. When the bystander opened his arms and let the wood fall to the floor, the father, through irresistible imitation, opened his arms, and his child fell to the floor and was killed.

It may be well in closing to summarize briefly what has been said in regard to the relation of the general mental condition, or tone of thought, to many of the epidemics considered, and to add to this some further illustrations.

For centuries before the period with which we are primarily concerned, the minds of all had been steeped in superstition. "Vulgar traditions and unreliable legends," says Fort (p. 362), "repeated nightly around the blazing fires of each domestic hearth, or gravely narrated to awe-struck multitudes at fairs, public markets and on great church festival days, assisted in maintaining an unreasonable spiritual activity; the mediæval mind was held to an abnormal strain by the impossible narration written in monastic annals." The imagination was kept at fever heat; miracles were supposed to be taking place every day; demonism was never questioned, and the ever increasing belief in witchcraft prepared the way for various other delusions. The breakings out in convents, of such frequent occurrence in the Middle Ages, were due to the mental food, to uninterrupted religious thoughts and practices, which, combined with the grossest superstitions, and accentuated by a life of solitude at times rendered the inmates of convents quite abnormal. It is safe to say that exaltation of spirit which came as a result of constant worship and prayer, combined with the constant fear of persecution, prepared the way for the epidemic martyrdom of the early Christian church.

Fort, speaking of the dancing mania, says (p. 363): "Ardent fanaticism developed from abnormal religious frenzy and irrational social life and aggravated mediæval superstitions, conjoined to extreme dread of swiftly destructive maladies, prepared the popular mind for the singular disease which swept through Germany in 1374." By "swiftly destructive maladies" he probably meant the plague, primarily, for it had already returned several times since 1348. He may have referred, also, to St. Anthony's fire, that terrible disease which burned away the flesh, and let the joints drop apart, so that a limbless trunk might be found by the roadside praying for death or begging to be killed (24:I, 54). This disease, it is believed, turned the minds of many toward the Holy Land, *i. e.*, inspired them with a desire to join in the crusades. It is possible that the English Sweat, another terrible disease, which occurred first in 1485, and returned four times by 1551, had considerable influence on the later epidemics.

When we come down to the beginning of the modern period, where we find remarkable examples of religious epidemics, especially in England, we find suitable mental food. There were political upheavals, confiscations and consequent ruin, want and brutal treatment; hatreds were intense, persecutions, cruel and bitter, and as a result, men's minds gave way under the strain. Many lived on the borderland between sanity and insanity; and were in a proper mood to be influenced by reported prophecies and miracles which were so common at that time. Even the great revivals of the last century were, as a rule, preceded by prophecies of Christ's second coming, or of the end of the world—reports that, when believed, move men as nothing else can. What the Rev. Mr. Eells says of the Shakers of Puget Sound, the Indian sect founded by a man who believed he had been to heaven, would apply equally well to the religious epidemics previously considered: "When superstitions, ignorance, dreams, imagination, and religion are all mingled together they make a strange compound," and, he might have added, they produce strange results.

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The references, because of their vast number, have not been given in full in the text nor in foot notes, except where there was a special reason for it. I have adopted and slightly modified the system of references used by Dr. Alexander F. Chamberlain in his book, "The Child." In most cases the reference is by the bibliography number rather than by the name of the author; however, where the author's name is a sufficient index, the bibliography number is omitted, and only the page is given, or the page and volume in case of works of more than one volume. For example, "Sprengel (II, 25)" would refer to Vol. II, page 25, of the work given in the bibliography under "Sprengel;" in a reference of this form (50:75) the 50 would locate the work in the bibliography, and 75 would indicate the page; if the work has more than one volume, the volume is referred to thus (44:II, 50).

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